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Business Process Management

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Learn:

- How BPM can help your organization
- How to become more agile and responsive to the needs of your clients
- How to turn market opportunities into revenue streams
- How to apply cognitive technology to BPM



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Business Process Management For Dummies®, 4th IBM Limited Edition

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Introduction

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Are you ready to tackle Business Process Management (BPM) for your enterprise? Do you want to improve efficiency, enhance agility, and also be more profitable? If so, you're in the right place.

BPM is an approach toward managing how an organization operates so it better meets the needs of clients. BPM enables organizations to be more efficient and more capable of change. BPM is exactly what your organization needs to meet the challenges of the modern business climate.

About This Book

Business Process Management For Dummies, 4th IBM Limited Edition, shows you what BPM is and how it can help your organization. You see how the BPM solutions from IBM help you gain many benefits, from higher customer satisfaction to greater agility in adapting to changing market conditions. You also learn about the latest advances in BPM, including the application of cognitive technologies.

Icons Used in This Book

This book uses the following icons to call your attention to information you may find helpful in particular ways.



The information in paragraphs marked by the Remember icon is important and therefore repeated for emphasis. This way, you can easily spot the information when you refer to the book later.



The Tip icon indicates extra-helpful information. You may discover how to get the most experts in the field or a fascinating way to implement your BPM or save time or money.



This icon marks places where technical matters are discussed. Sorry, it can't be helped; plus, the information is intended to be helpful.



Paragraphs marked with the Warning icon call attention to common pitfalls that you may encounter.

Beyond the Book

You can find additional information about BPM by visiting the following websites:

- ✓ www.ibm.com/bpm: Learn more about BPM.
- ✓ www.ibm.com/smarterprocess: Visit this site to discover more information about process transformation.
- ✓ ibm.biz/BPMONCLOUD: Find out more about IBM BPM on Cloud.

Chapter 1

Understanding BPM

In This Chapter

- ▶ Seeing BPM as the agile business model
- ▶ Recognizing how BPM benefits your business
- ▶ Switching to BPM
- ▶ Going beyond existing tools

Better processes produce lower cost, higher revenues, motivated employees, and happier customers. Business Process Management (BPM) is an approach that's designed to produce better processes through the combination of technology and expertise. BPM is a collaborative effort between business units and the IT world, and this effort fosters a new paradigm of efficient and logical business processes.

In this chapter, you get an introduction to BPM and see how it can benefit your business. You also see why now is a good time to implement BPM and why your existing tools just won't do the job.

BPM: The Flexible, Agile, and Scalable Business Model

In today's dynamic business environment, organizations need to be agile and flexible so they're ready to respond to whatever challenges come their way. BPM provides that agility and flexibility by giving you more direct control over your operational processes. You can make better use of technology and

your entire enterprise becomes far more responsive, helping you meet your goals.

BPM helps create value for the enterprise through growth, improved performance, better productivity, higher staff effectiveness, and better customer service. All these improvements result directly from improved processes.



BPM can help your organization become more agile in a number of different ways:

- ✓ **Increased productivity:** In today's economy you need to do more with fewer resources. Applying BPM principles helps your enterprise increase its productivity.
- ✓ **Speed to market:** When a new idea or product comes along, effective BPM helps you be one of the leaders, not one of the followers who were too late to take advantage of the new market.
- ✓ **Reaching the global market:** BPM can help you streamline and scale your supply chain operations, so you can take advantage of opportunities no matter where they may exist.
- ✓ **Achieving compliance:** Keeping up with complex compliance, regulatory, and corporate governance requirements can be very costly and time-consuming. Using BPM, you can keep these costs under control.
- ✓ **Accelerating innovation:** You need a business environment where innovation isn't only encouraged but also where innovation is a normal part of daily operations. Here, too, BPM can help make that possible.



The agile and flexible organization has the ability to meet the needs of the customer and be the winner at the end of the day.



Practices such as Six Sigma and Lean Six Sigma as well as the work of quality control experts such as Deming are fully incorporated in BPM methodology. BPM actually enables you to leverage these practices to provide even greater benefits to your enterprise. For more information on Six Sigma, check out its full retail title, *Six Sigma For Dummies*, 2nd Edition, by Craig Gygi and Bruce Williams (Wiley).

Understanding How BPM Benefits Your Business

The basic operational value proposition of BPM is the ability to process more with less effort and higher quality. As a result, BPM has become a cornerstone discipline for companies that want to grow revenues quickly while controlling resource costs.

Business processes are pervasive in any organization. These processes represent all the activities that organizations in all industries undertake. Some processes are highly structured, such as high-volume manufacturing processes, while others, such as medical care that must be tailored to specific patients' needs, are more unstructured.

You may not think of the activities performed within your organization as business processes, but that's exactly what they are. As you try to improve your operations, you're engaging in a process improvement project. Clearly, you want to leverage advanced methodologies and technologies to deliver consistent, repeatable, and more efficient outcomes as you work on this improvement project. BPM helps you define and manage your business processes so you can reach your desired business goals.

Making faster decisions

Speed and agility are very important factors in the success of any business. Take the fast-food restaurant business as an example. Look at any fast-food restaurant on the corner during lunchtime. They serve many times the number of lunches of the typical sit-down restaurant simply because the industry is fast. People typically have a limited amount of time for lunch, and they know that the fast-food restaurant will serve them quickly. Customers don't like to wait for products or answers.

This example is excellent for seeing how managing a business process effectively can greatly improve the speed of an operation. By using BPM, your managers have unimpeded access to data as well as well-defined systems to help them make decisions quickly.

Typically, when organizations thought about process improvement, they focused on the orchestration of the various tasks that comprise the end-to-end process. But the decisions that take place in the process are equally important. BPM can help you automate high-volume operational decisions so they can be made more quickly and in a highly repeatable manner. In this way, managers gain the tools they need to more easily make important decisions quickly.

Making better decisions

Because BPM can help make sure that your managers have complete information, they're able to make better decisions. In addition, by helping you automate many decision-making processes, by using BPM, you can be sure that most decisions are made in a much more consistent and timely manner. Because these decisions are based on solidly defined rules, they're likely to be more in line with the goals of your organization.



BPM also enables you to see your processes in action and to see how decisions affect your bottom line. As a result, you're able to do more than simply react; you can alter the process to better manage new opportunities or looming threats. BPM gives you the tools to improve the processes and decisions proactively. This process improvement ultimately means that decisions aren't only made faster, but also better decisions are made.

Making financially sound decisions

In addition to fast and better decisions, your company may absolutely require that any decisions be financially sound. No company can stay afloat for very long if it's throwing away money. Virtually every decision made within an organization affects the bottom line.

BPM helps you create processes that can be quantified in terms of financial results. By using BPM, the decisions that are made can help maximize the financial returns by minimizing time spent, maximizing the use of resources, and reducing waste to an absolute minimum. Through the use of BPM,

management is no longer in the dark when it comes to making important financial decisions. Rather, it's able to see the big picture so it can make fiscally responsible decisions for the enterprise.

BPM helps you automate the decision-making process by using a business rules approach. Because your business rules are defined based on financially sound foundations, those automated decisions automatically are based on financially sound foundations also.



The bottom line is that BPM can help improve your decision-making process by making it faster, more intelligent, and by making it return decisions that are financially responsible.

Why Changing to BPM Now Makes Sense

Every organization has a number of processes in place, but there is also likely to be a certain amount of inertia because people are used to doing things certain ways. Sure, people may agree that some improvement may be possible, but without seeing the big picture they don't see the need for change.

Unfortunately, burying your head in the sand simply fills your nostrils with a bunch of gritty sand while leaving the most vulnerable parts of your body exposed. Organizations that ignore the need for change are doing the equivalent of burying their heads in the sand. Not only will the problems not go away, but the competition will rush ahead and win the business race.

At its core, BPM takes rigid, independent processes and transforms them into flexible, choreographed business services that work together to create substantial business value. This transformation can help the organization to adapt to an ever-faster changing business climate and global economic challenge.

It's a tough market out there

Rarely, companies have an entire market all to themselves. Indeed, most enterprises are facing ever-increasing challenges

just trying to hold onto their market share. In fact, in most cases, companies are dealing with more and more competition every day.



You simply can't afford to sit still and hope for the best. If you take this approach, you'll soon find that your competitors are taking away all your business.

What do you need to do to be competitive in tough markets? Here are a few very important items:

- ✓ **Improve productivity.** To compete and win, you need to be profitable. One of the best ways to improve profitability is by improving your productivity. If you can improve your productivity so your product or service costs you less to deliver, it's much easier to compete against low-cost competitors.
- ✓ **Improve decision-making.** Automating the decision-making process leads to faster, better, and more fiscally responsible decisions based on business rules. Of course, automating the decision-making process also has positive effects on productivity.
- ✓ **Improve flexibility.** Market demands seem to change almost overnight, making flexibility and agility one of the primary keys to success today. If you can't deliver what the customers want tomorrow, you may as well be in the buggy whip business — there isn't a lot of demand, but you have the market cornered on obsolete products no one wants.

Waiting won't improve things

There's no question that people have been living through some tough economic times. Many people and organizations see a poor economy as a reason to sit on the sidelines and wait for things to improve before making any decisions. Their rationale seems to be that doing nothing costs nothing. On the surface, this rationale may seem correct but only if you ignore the fact that doing nothing creates a large opportunity for your competition. While you're busy doing nothing, you can bet that your competition is trying to become more productive, more flexible, and more profitable.



Waiting for improvement to happen on its own is almost a sure path to failure. There's no better time than when conditions are challenging to make positive improvements in your business processes. After all, the people within your organization are almost certainly aware of the current business conditions, and they know that you need to remain competitive.

Take advantage of the opportunities

Difficult times create excellent opportunities for those people and organizations that are willing to invest in the future. While everyone else is sitting around complaining, you can begin the planning and implement changes that ensure a long and profitable future for your organization.

By using BPM, you not only improve your current processes, but also you build and deploy new capabilities and improve your Return on Investment (ROI). In fact, by implementing BPM now, you'll be able to make the necessary improvements faster, at a much lower cost, and you'll be able to better leverage your existing resources, thus having an even more positive effect on ROI.

With BPM, the benefits go beyond what you may expect. For example, your customers are likely to see improved customer service and satisfaction while your partners and suppliers will experience improved communications, faster response, and an organization that's generally easier to do business with.

These changes position your company to take advantage of new opportunities in ways that simply aren't possible now. Whether you choose to optimize current operations or develop new processes and applications, BPM can help.

Why Existing Tools Just Won't Do

If you've been reading the chapter through to this point, by now it may be pretty clear that BPM can offer some very important benefits to your organization. But even so, you

may encounter some opposition from people who believe that your existing tools should be more than adequate. In this section, you take a look at the alternatives to see why they're not up to the job.

Buying a packaged application

In many cases, you can buy a packaged application that's supposed to be designed to address the needs of a particular process or function. Unfortunately, packaged applications are rarely a good solution because three issues with buying applications exist:

- ✓ **Time to value:** Additionally, most applications require organizations to start with the application's core data model and base functionality. A great amount of time could be spent implementing capabilities that aren't directly relevant to your process problem but are required for the proper execution of the application. No such start-up costs for working with BPM exist because you're starting with your current processes.

According to Forrester Research, at one point the industry average for installing new applications was 14.5 months — and 36 percent of the projects were delivered late. When compared with typical BPM installations, many BPM deployments would have three or four versions of a process deployed in that time — each generating significant business value.

- ✓ **Responding to change:** After the packaged application has been installed, organizations are often faced with difficulties keeping the application synchronized with the changing priorities of the business processes. Applications typically aren't designed to accommodate frequent change — they're focused on standardizing actions and processes. In fact, customizing a standard application often introduces additional problems and costs.
- ✓ **Expanding scope:** Process improvement requirements can come from all parts of the organization. While the first problem may be bringing new employees into the process, the next could be in managing shipment logistics. Buying specific applications for each of these process problems wouldn't be practical. In contrast, a BPM suite (BPMS) can be used to improve any process.





You can use BPM to leverage existing investments by integrating BPM with legacy systems rather than replacing them with package solutions.

Extending an existing application

Most organizations already have existing applications that they use in their business processes. Obviously, making use of that existing application gets major consideration. If an existing application is in place, some companies evaluate extending that application to help drive improvement in key process areas.



When taking this path, you run into problems:

- ✔ **Cost:** The cost of purchasing additional modules and the development tools required to customize the existing application can often be extensive — more costly than adopting BPM. In addition, extending the applications often requires unique, expensive skills. Often, applications must be extended by using proprietary application-specific languages. Contracting with consultants who possess this knowledge can be expensive. In contrast, leading BPM solutions are standards based, and many consultants have been trained in the core skills and technologies required for deployment.
- ✔ **Complexity:** Extending packaged applications generally makes future upgrades more complex — sometimes significantly more complex or virtually impossible. Most application vendors advise clients not to extend or customize their applications. They suggest a “vanilla” implementation (one that isn’t customized) in order to make future upgrades possible.

In addition, extending a transactional application to support process management capabilities often means that companies have to custom develop capabilities, such as workflow and reporting, which exposes development teams to the greatest possible risk — they’re constrained by the existing application on things like data model and user interaction. Yet, they must also custom develop complex new capabilities specific to process management. In addition, if you extend a packaged application, the application vendor may no longer be willing or able to support the application.

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

Traditional application development

One option is to develop a completely new application in house. After all, you probably have some sort of IT staff, right? In fact, most companies have the capability to develop applications in house. So, it isn't uncommon for these companies to evaluate whether they can use their traditional application development instead of using a BPMS.



Traditional application development is a poor fit for driving process improvement in two different areas:

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

The BPM advantage

BPM provides you with productivity improvements compared to other solutions for a number of reasons:

- ✓ **Built-in functionality:** The tools you need to define process improvements and implementation, such as modeling, workflow, simulation, and so on, are typically built into a BPM suite.
- ✓ **Cohesive development environment:** Because the tools you need are integrated into the BPM suite, those tools are designed to work together, which simplifies implementation and change management.
- ✓ **Graphical development tools:** Leading BPM suites support graphical development of process solutions instead of requiring complex and highly technical coding. This speeds development and reduces the technical skills necessary to deploy BPM.



BPM simply lets companies create a platform for process improvement easier and faster. Often, however, you can encounter a challenge in justifying the BPM investment as opposed to following the traditional paths, such as buying or building a custom application. BPM offers a high ROI, rapid development, and the tools to drive process improvement. In addition, BPM can help your organization become more agile and able to face the challenges of the future.

Chapter 2

Getting Started with BPM

In This Chapter

- ▶ Understanding your business goals and strategy
- ▶ Picking a meaningful project
- ▶ Knowing the BPM umbrella options
- ▶ Looking at IBM software for BPM

With all the complexity of today's business environment, getting started with business process management (BPM) can seem a little challenging. The key to success is to use the right approach — one that starts with a careful analysis that's focused on business value and then expands to leverage successes along the way.

In this chapter, you see how to get started with BPM by evaluating your company's needs, picking the right project, and having a look at the BPM marketplace.

Evaluating Your Company's Needs

To get started with BPM, you need to begin by evaluating your company's needs. Any successful process improvement initiative must start with and be driven by business value. You must understand the business goals and strategy that drive the process improvement initiative.



Begin by analyzing your current processes to identify those processes whose improvement will deliver the greatest return on investment — the so-called “low-hanging fruit.” After you’ve identified the candidate process projects and

prioritized them based on your business needs, you're ready to begin working on an initial project.

But how do you evaluate your company's needs? Clearly, your evaluation must begin with an understanding of your business. Ask yourself the following questions:

- ✓ Which business processes are resulting in customer dissatisfaction?
- ✓ Which processes have obvious problems?
- ✓ Where are your bottlenecks?
- ✓ Where can improved efficiency quite obviously save you money?
- ✓ Who are the leaders who are most likely to champion a BPM project and help ensure its success?

An analysis of your business is an important first step on the road to process improvement, but you also need to exercise some caution against analyzing too much. Remember that any process improvement initiative must be able to deliver some quantifiable successes within a reasonable time frame so stakeholder commitment remains strong and your funding for the initiative remains in place.



One of the best approaches for an initial project is to select one that not only meets your business needs but also one that can be implemented fairly quickly. By starting with a manageable project, you can develop your process improvement skills and deliver value to the business quickly. Your choice of a proper project can help ensure continued commitment, funding, and success of subsequent projects that you may want to take on in the future.



BPM is a collaborative venture that involves both your business units and your IT staff — make sure that both are on board before you begin, to help ensure the ultimate success of your project.

Selecting the Right Project

You're likely to have a lot of scrutiny from every level of your enterprise. Therefore, you want to pick a project that's

meaningful but that can be implemented in a reasonable period of time.



Success with BPM begins with being able to document the current processes. After all, you can't manage what you can't measure.

Process analysis

Discovery and design are the first steps in understanding your business processes. In this stage of the project, you visualize, document, and model current or new processes. In some instances you may want to rework existing processes, while in others you may need to create new processes from scratch.

BPM is a system of managing business activities through a framework of operational processes. A business process is the set of tasks and activities that accomplish the specific organizational objective. BPM maximizes the effectiveness of business processes by following certain steps:

- 1. Determine the best process given the current conditions.**
- 2. Figure out how to make the process operate most effectively.**
- 3. Implement controls to achieve ongoing effectiveness.**

After you understand the current processes, you have a baseline against which you can measure progress and improvement. With BPM you can make continuous improvement instead of attempting to reach the ideal state with one huge jump. Essentially, a BPM project follows an iterative approach that allows this continuous improvement.

As a part of your process analysis, look for suboptimal and broken processes that cause bottlenecks in your current system. Although pretty much every process in the company could be optimized, during the process analysis, it's extremely important to first locate any current processes that cause big problems. Remember, because BPM allows continuous improvement, optimization is possible at any time.



Although your IT staff plays a key role in implementing your BPM project, you need to tap the expertise of your business units who already have the knowledge of the current processes. Both teams must be full contributors to ensure the success of your BPM project.

Starting small, proving business value, and scaling up

Many BPM experts may suggest getting your feet wet, to start, with a small, yet important, project. As with any technology that's new to you, you'll encounter a learning curve. To get a better idea of how you may start small and then scale up, picture for a moment a baseball game and think of that game as being a business.

Clearly, your goal is to win the game. But a series of processes contribute to that goal. For example, when the opposing team is up to bat, your team needs to field a pitcher, a catcher, infielders, and outfielders. But when your team is up to bat, you need to concentrate your efforts on hitting the ball and going around the bases. Already we've broken down the game into two large processes. However, even these two large processes can and should be broken down even further to concentrate on the specific processes each player needs to perform.

Suppose, for example, you've identified a problem area with your base runners not being able to get further than first base. You may define a process called "running around the bases to home plate." Although this single process is only a part of the game, making improvements to this specific process could have a major impact in your team's ability to win the game.

Your business probably isn't a baseball team, but the lesson is the same. You can start into BPM with a small but important process, which can have a large influence on your business's success. Later, you can scale up and start using BPM to tackle additional processes.



In many cases, processes you develop while implementing BPM are reusable in other places. This reusability can help you leverage the efforts you put into your BPM project.

Transforming process and automating decisions

A business process typically stretches across organizations, departments, systems, and applications; therefore, all these components need to be orchestrated and integrated.

With BPM, a business-rules engine helps to automate decisions that were previously made manually, and it also segregates decision logic from applications so that sound decision rules can be easily and quickly changed. You need end-to-end process monitoring and analysis to capture real-time key performance indicators (KPIs) and other performance metrics to continuously evaluate and monitor process performance. Based on the process performance data, corrective actions can be taken to augment or change processes so they're even more efficient.

Proving value

There's no doubt that all eyes within the enterprise will be on you when you take on your first BPM project. That's one reason why it's so important for you to develop metrics to measure process performance both before and after your BPM implementation. You need to be able to show the improvements based on real numbers. For example, you may be able to show that

- ✓ Invoice processing time was reduced by 50 percent.
- ✓ Each claims processor was able to successfully complete 25 percent more items.
- ✓ Departmental costs were reduced by 15 percent.
- ✓ Online orders doubled.

Obviously, you have your own measurements to prove the value in BPM. Regardless, you need to be thinking about those metrics as you plan your project.

Understanding Your Options

Just as there are different types of businesses, different types of BPM products exist that fall under the BPM umbrella. Each of them offers a set of fundamentals, such as reducing costs, improving agility, and increasing efficiency, but clear differences exist between them.

Functionality options

A BPM solution must offer the functionality to help you reduce costs by streamlining and automating processes effectively. Further, this functionality must include the ability to correctly model the business processes, translate those processes into implementation, and iteratively improve the process.

In addition, the BPM solution must offer an advanced user interface generation functionality so the user productivity can be increased. Along with this functionality is the need to use business rules that govern process operations.



A key element of functionality is effective event handling so the relevant information is delivered seamlessly to the end-users. By ensuring that users have the information they need when they need it, operational efficiency improves tremendously and costs are concurrently reduced.

Time to value

When working on your first BPM project, consider the pay-back time. With all eyes in the company on your project, you want to choose a BPM solution that offers ease-of-use and rapid turnaround.

Factors that influence time to value include

- ✓ The skill level demanded of users
- ✓ How quickly the BPM system can connect with your existing systems and applications
- ✓ Help and training from your vendor
- ✓ A proven methodology to deliver rapid business value

A BPM vendor with wide experience across many different industries is able to offer you solutions based on that experience.

Additional value-added capabilities

The best BPM vendors offer additional value-added capabilities, such as

- ✓ Process discovery
- ✓ KPI handling
- ✓ Continuous process improvement support

A BPM solution based on industry standards instead of proprietary ones is far easier to maintain and offers better value.

Understanding the IBM Advantage

Instead of forcing you to adapt your business processes to a pre-existing rigid framework, IBM offers a broad range of BPM capabilities and products that can be precisely tailored to your needs. IBM Software for Business Process Management can address the full spectrum of process requirements.

Capabilities

This section highlights the important capabilities and benefits of IBM BPM.

BPM with SOA

In BPM with Service Oriented Architecture (SOA), business processes, human tasks, and business rules are all examples of service components architected for reuse and flexible integration. This integration not only works inside BPM with SOA but also with business systems across the enterprise and with external business systems.

SOA improves agility in business integration and leverages investment of existing IT systems. Business analysts can use BPM with SOA to model end-to-end business processes that are then implemented as reusable SOA components.

The BPM with SOA style of BPM development is probably closer to the traditional IT style than some of the other BPM solutions, because although business analysts create the basic process models, developers in IT have a stronger role in the final product.

Rapid process implementation

A rapid process implementation with focus on a project team collaboration solution provides a point-and-click development model. The business is actively involved in collaboration with IT throughout development to ensure the delivered solution is aligned with business expectations. One key architectural feature is the shared model wherein the models created at design time are the same models used at runtime. The model seen in the process diagram during the design phase is exactly what's executed on the process engine. Nothing is lost in translation between business and IT — they speak the same language.

Another important feature is that any design component can be played back instantly from the authoring environment. This playback is possible because each step in the process model has a defined implementation that may be a human task, an automated step, or a business rule. Even complex tasks can be designed and played back in the design tool. This interaction breaks down the barriers between design and runtime, thus fostering close collaboration between business units and IT.

A collaborative, social BPM platform

IBM provides a BPM platform that facilitates enterprise-wide visibility, governance, and collaboration of business processes by your process participants. IBM provides a common software platform for process improvement and BPM life cycle governance, offering the power and robustness required for mission-critical enterprise solutions while combining the simplicity required for business engagement through collaboration. Built-in analytics and search capabilities are designed to help you improve and optimize your business processes now and in the long run.

IBM takes a social BPM approach toward process design and management that greatly enhances collaboration among process participants in your organization. With robust collaboration and social capabilities, IBM provides a BPM platform that fosters greater collaboration and tools that are built with the business user in mind.

Content management, workflow, and collaboration capabilities

Content management, workflow, and collaboration capabilities between departments and across the enterprise are a strong focus of enterprise content management (ECM) and are good choices for BPM projects relating to the authoring, assembly, distribution, and maintenance of documents. These capabilities support active content natively so many document-related processes are immediately available to the process designer.

Content management, workflow, and collaboration capabilities are also very appropriate when retention and records management are important parts of the business. These are vital in litigation and compliance, as well as audit support.

All IBM BPM editions now include case capabilities as standard. It supports structured, goal-based, and hybrid process patterns with high performance straight through processes that continue to be supported in the BPM Advanced edition.

For content specific workflow, the content management capabilities deliver solutions that identify the right information, present it in the right context, and engage people with the right information to drive business outcomes. In addition, the expanded work patterns in IBM BPM provide an adaptive user interface that enables work with tasks and process instances on all devices.



Using BPM with SOA in your BPM solution makes good sense with content life cycle processes, document capture workflow, case management, and retention-sensitive processes.

Dealing with unstructured processes using IBM BPM

You can't ignore unstructured processes; they're used to innovate, imagine, and solve problems such as launching new products, entering new markets, and so on. Often your most

highly skilled employees (otherwise known as *knowledge workers*) are the ones who use these unstructured processes to create value. Customer service reps, social workers, loan officers, case managers, healthcare workers, analysts, and investigators are all examples of knowledge workers.

The unstructured process has several characteristics:

- ✓ The activities or steps in the process can't be predefined and more often than not aren't repeatable.
- ✓ These processes happen infrequently and sometimes only once.
- ✓ The process often involves human judgments, which aren't based on predefined rules and policies.
- ✓ The process is difficult to assign performance measures during designing.



Knowledge workers can be more effective using the case capabilities within IBM Business Process Manager. It enables them to work toward a specific goal, while letting them decide the necessary interim steps to achieve the outcome through a case management approach by using ad hoc processes.

Using mobile processes for greater customer engagement

Mobile opens new possibilities within a process by taking advantage of new mobile contextual opportunities (GPS, accelerometer, digital signatures, sensors, and so on) and integrating it with digital data residing in the system to drive the process and engage the customer in new ways.

With IBM BPM, you can deliver superior customer experience and top-line growth by radically simplifying customer interactions through seamless and proactive services based on customers' immediate context.

Some of the mobile capabilities of IBM BPM incorporate the new, responsive, and federated Process Portal that allows

- ✓ Dashboards with enhanced visualization and social collaboration
- ✓ Field workers to participate in processes by using their mobile devices

- ✓ Self-service Saved Searches within the Process Portal that helps individuals and teams manage and organize their tasks
- ✓ Styling, configuring, customizing, and extending the Process Portal to meet the demands of your business
- ✓ Responsive user interface controls that dynamically adapt for mobile devices, tablets, and desktop environments

Products

Take a look at the products in this section to better understand the IBM advantage.

IBM Blueworks Live

IBM's process discovery BPM solution is IBM Blueworks Live, a cloud-based offering. IBM Blueworks Live allows knowledge workers to leverage the benefits of BPM in a cloud environment to capture, understand, collaborate on, and improve everyday processes that drive their businesses.

IBM Blueworks Live makes it easy for any organization to get started with BPM, is competitively priced, is easy to use, and has an elegant and simple interface. Some of the features of IBM Blueworks Live include

- ✓ Automation of simple processes
- ✓ Integrated BPM community
- ✓ Built-in dashboards and reporting
- ✓ Governance
- ✓ Discovery and documentation of complex processes

IBM Blueworks Live is an SaaS (Software as a Service) offering that you can leverage to drive the transformation of your business as you implement new business models, increase speed and innovation, and reengineer business processes. IBM Blueworks Live has industry-specific templates to help you address challenges and issues quickly.

IBM BPM on Cloud

BPM currently is offered as a service. If you're eager, try out BPM and see if it's the right fit for your company. The service is about moving forward quickly, and you can start today without the worry of capital expenditure, hardware, development, and maintenance of systems and increasingly just focus on the processes.

IBM BPM on Cloud gives companies the ability to develop and deploy process applications that are available anytime and from anywhere, which results in greater flexibility, faster time to value, and early adoption.



The key benefits include the following:

- ✓ Faster deployment times
- ✓ Ability to scale up and down according to your needs
- ✓ Low start-up costs
- ✓ Predictable long-term costs through subscription-based models



With IBM BPM on Cloud, you can get a full life cycle BPM environment, including development, testing, and production with tooling and runtime for process design, execution, monitoring, and optimization — ready-to-use cloud service.

IBM BPM Pattern

IBM BPM Pattern provides common patterns that enable IBM BPM solutions to run on IBM PureApplication. IBM Business Process Manager is a configuration that's optimized to run in on-prem, off-prem, and hybrid cloud environments of IBM PureApplication. It helps to accelerate the setup and management of complex, highly available business process environments. It enables higher hardware utilization while it helps you focus your critical resources on value added activities and strategic initiatives instead of installation and configuration.

Cognitive business operations

IBM is playing a leading role in researching, developing, and deploying the next evolution of business process management. By combining IBM's market-leading business process and decision management software with its market-creating

Watson application programming interface (APIs), you can reinvent your operations to drive unsurpassed innovation, customer centricity, and competitive advantage.

By linking cognitive APIs, including Natural Language Classifier, Sentiment Analysis, Speech to Text, and others, to the various steps in a business process, your processes and decisions will be able to sense, respond, and learn.

Head to Chapter 5 to learn how the cognitive capabilities of Watson APIs have vastly expanded the power and potential of IBM Business Process Manager and what this means for your enterprise operations.

Chapter 3

Putting BPM to Work for Your Organization

In This Chapter

- ▶ Getting your BPM project off the ground
- ▶ Understanding the basics of building a BPM solution
- ▶ Dotting your I's and crossing your T's: Documenting your process

To put business process management (BPM) to work in your organization, you need to do a certain amount of planning. As with any large change, being prepared makes all the difference in how successful a project will ultimately be. In addition, you don't make the decision to add BPM in a vacuum; rather, you need to have your management team and colleagues on board.

In this chapter, you see how to do the planning necessary to get your BPM project off the ground, you get an introduction to the basic steps of building your BPM solution, and you see the importance of making sure that you have fully documented your process.

Planning, Planning, Planning

Of course you want your BPM project to be a success. You wouldn't waste your time trying to develop the project otherwise. But the key to BPM success is "planning, planning, planning." Not every project is successful, and BPM projects are no exception to this. Any organization that begins a BPM

project has high hopes for its success, but there are a number of things that can derail a project:

- ✓ Choosing the wrong project
- ✓ Choosing the wrong process
- ✓ Lack of proper communication
- ✓ Lack of collaboration between the partners
- ✓ Ineffective coordination
- ✓ Missing buy-in from a key player

Any one of these elements can spell disaster for your BPM project. Upfront planning needs to take each of these elements into account to ensure success.

Choosing the correct project/process

Chapter 2 discusses the concept of choosing the correct project. Choosing the correct process within the project is very closely related, of course. To reiterate, you need to begin by doing process analysis so you can tell which processes benefit the most from the implementation of BPM. As you do your analysis you may discover that you're developing a list of processes that need to be prioritized to determine where to begin.



Don't confuse requirements documents with process analysis. *Requirements documents* spell out the required outcome, but *process analysis* looks at how things are done.

As you're working on your process analysis, explore different variants to visualize potential ways that you can change the processes. Remember, one of the key drivers for implementing BPM is to improve the processes. Just because something was always done a certain way doesn't mean that it's the best way, the most efficient way, or the logical way to do things.

Selling BPM to management

Selling BPM to management may be largely a matter of showing the economic value of BPM to the organization. BPM

delivers this value because better processes produce lower costs, higher revenues, motivated employees, and happier customers. The most dramatic examples of economic value driven by process improvement come from the companies that led the adoption of the Six Sigma or Lean Six Sigma methodologies.



A study showed that with just a one-Sigma shift, companies experience approximately a 20 percent margin improvement as well as corresponding increases in capacity, reductions in number of employees, and reductions in capital investment. Companies like General Electric have adopted these methodologies and embraced BPM specifically because of these types of economic benefits. GE also made Business Process Management a core part of its corporate culture all the way up to the CEO. In the beginning, you may not be able to assume this type of commitment from the entire executive team. Even so, this shouldn't be a problem because even a basic investment in BPM can yield significant returns that may result in more solid support as the executives see the results.

Without any process redesign, Connecticut-based research firm Gartner indicates that companies can still expect to receive significant operational improvements for any given process. Gartner claims that by simply "making the current state handoffs, timing, and responsibilities explicit, productivity improvements of more than 12 percent are normally realized." For many processes that is just the start of the efficiency gains.

Even a few years ago, Gartner reported that 78 percent of BPM projects saw an internal rate of return (IRR) of greater than 15 percent. Moreover, these projects typically deploy quickly (67 percent in less than six months, 50 percent in less than four months), so companies have been able to realize significant value with rapid returns by driving process improvement with BPM.

Selling BPM to your colleagues

Getting management on board is only the first step (see the preceding section). You also need to sell your BPM project to your colleagues. To do this, show them how they can benefit from BPM, too.

Your colleagues are interested in the basic operational value proposition of BPM, which is the ability to process more with less effort and higher quality. Most processes have significant waste because of manual effort, for handoffs between departments, and a general inability to monitor overall progress. The initial deployment of a BPM solution eliminates these problems and results in real, quantifiable benefits.



After efficiency improvements, some of the largest gains to be realized from BPM are typically in making processes more effective. These effectiveness gains are typically expressed in the context of handling exceptions better or making better decisions. For example, one telecommunication service provider found that by better controlling its billing disputes process it was able to reduce the amount it was paying out by approximately 10 percent. The provider's BPM deployment helps it identify duplicate issues, research disputes more completely, and enforce more consistent payout policies. For processes that are regulated, this level of control and consistency adds another benefit: the avoidance of fines due to incorrect, inconsistent, or slow execution of the process. These types of efficiency improvements are important to your colleagues because they're interested in making their departments look good.

Your colleagues are also interested in the agility that BPM provides. In any modern organization, the ability to change quickly is essential. Often this is driven by new opportunities, but in some cases new regulations require changes in processes. Regardless of the reasons for the changes, your colleagues appreciate the fact that BPM provides them access to quickly adapt processes as needs arise.

Building a BPM Solution

Building your BPM solution typically follows a relatively predictable path. In most cases, you find several fairly quick iterations as the solution is developed and refined.

A typical BPM project scenario

Although each BPM project is somewhat different, it's pretty easy to create a road map that shows a common project development path. Here's a fairly typical scenario:

1. Assessment phase

- a. High level design
- b. Project scope and plan

2. 1st Iteration

- a. Application framework development
- b. Initial object model defined
- c. Initial rule set defined
- d. Process flow created
- e. Basic deployment to development environment
- f. Initial governance plan created

3. 2nd Iteration

- a. Live database connection established
- b. Framework refined
- c. New rules added
- d. Add user interface
- e. Process flow updated

4. 3rd Iteration

- a. Integration points refined
- b. Object model refined
- c. Additional rules added
- d. Refine user interface
- e. Process flow added
- f. User training

Depending on the project's needs, there could be additional iterations before the project is considered to be essentially complete. But because each iteration occurs on a very short cycle, the entire development process happens very quickly.

BPM project resources

You need to allocate a certain level of resources to your BPM project. Typically these resources include software, people, and hardware.

Software resources

Some vendors license components individually or require additional software to support the BPM deployment. BPM suites that are based on industry standards (like those from IBM) are more likely to be successfully deployed by using the existing infrastructure components of an organization. Most BPM vendors support the ability to buy BPM at the departmental level and grow that license to the enterprise as requirements grow. This process allows you to grow your BPM footprint more slowly.

People resources

Make sure to plan for staff to handle your BPM project implementation. Typically, these people should include

- ✓ A project manager
- ✓ A subject matter expert
- ✓ One or two business analysts
- ✓ One or two developers

This core project team aligns the Business and IT organizations to ensure project success.

The small size of the project team demonstrates the productivity that BPM brings for delivering process improvement. Typically, you need no more than five or six people on the team.

The BPM project team should be dedicated to ongoing BPM projects if you want to drive continuous process improvement. Your team doesn't just work on a single project and then disperse, but instead, the members use their expertise gained from completed projects to help make future BPM projects even more successful. Staffing your BPM team

becomes an ongoing investment that grows and pays off as you add new processes.

Hardware resources

In reality, your ongoing hardware needs for BPM project development are essentially comparable to other application deployment needs. A BPM vendor provides you with minimum hardware requirements, but it's unlikely that there will be any surprises in them.

Documenting Your Process

In any BPM project, documentation plays a very large role. The documentation process actually begins at the very beginning of the project.

Documenting the changes

Before you can begin your BPM project, some baseline measurements can help you see the changes that occur after BPM is in place. Implement the monitoring and management of selected core and enabling processes. In this way, you can gauge your progress as well as measure the improvements.



Having a program, such as Six Sigma, functioning in your organization helps because this ability enables you to measure improvement directly. BPM leverages programs like Six Sigma to add even more value.



Keep in mind as you establish your baseline measurement system that there may not be a direct correlation between each of the processes that exist before BPM and those that exist after BPM is implemented. This lack of correlation between the processes comes about because BPM helps eliminate certain non-value-added tasks.

Understanding BPM architecture

BPM has a particular structure or architecture that greatly assists in process documentation. Although different

implementations of BPM vary somewhat, certain major components are fairly common. These include

- ✓ A workspace that includes user interfaces, process monitoring, management dashboards, and task inboxes
- ✓ An execution environment where you find the business rules engine, the process engine, and analytics engine
- ✓ The metadata repository that contains process asset descriptions, process relationships, and process policies
- ✓ A process design toolbox that enables process modeling, business rule definition, definition of KPIs, process development, and design of user interfaces
- ✓ A new services development environment that includes web service adapters, connections to existing functionality, and new services creation tools

Documenting processes

In the BPM environment, process design and definition occurs within a graphical environment. In most cases, process design tools allow business analysts to use drag-and-drop techniques to build the process definitions.

Most BPM development tools use a standard modeling notation — essentially, a simplified programming language — to define the process model. Typically, either Business Process Modeling Notation (BPMN) or XML Process Definition Language (XPDL) is used. Using one of these modeling notations enables business process definitions to be standardized and therefore shared between different tools.

Essentially, a process design looks very much like a flowchart wherein the processes are the boxes in the flowchart, and the business rules define the logic flow through the flowchart. So, for example, you may have a process that handles customer complaints. The first part of the process would trigger when a customer complaint was received. At that point, you may have a decision point driven by a business rule that routed complaints from very important customers to an elite team of customer service representatives. Other customers would have their complaints sent to the ordinary customer service team.

The process design is made up of various services and business rules. The design begins with the collaboration between the business analysts and the development staff. The business people provide the definitions and then the developers create the model using those definitions. In some BPM implementations, business analysts may play a larger role in the whole design process.

Business rules are at the heart of a BPM project. These rules are the policies and procedures that automate the business process. In a BPM project, the business rules are managed in a rules engine, which is accessible to business managers. As a result, it is much easier for managers to see and to change the business rules as needed.



The ability for business managers and other authorized users to change rules in the rules engine is one of the keys to the agility provided by a BPM solution. Rather than having to redesign the whole process, by adding or changing an existing rule the system can quickly be adapted to changing conditions.

Business rules govern workflow routing within a BPM process. In some cases, these business rules create exceptions such as the one that routes customer complaints from VIP customers to the elite customer service team. In other cases, these rules make decisions automatically. For example, a rule may automatically approve an order for customers in good standing if the order is below a defined threshold.

Process simulation

BPM implementations allow you to test your processes before going live with them. This testing process is called simulation, and you run the processes through what-if scenarios so you can make adjustments and fine-tune your model.

With process simulation you can see how your model reacts to different conditions, and you can view reports, which analytically break down the data. In some cases, you can use historical data gathered from real-world processes and run that historical data through the simulation so you can compare how your model functions with the way the existing processes work.

When you run a process simulation, you obtain valuable documentation, which shows where you may need to make changes to improve the efficiency or operating function of the model. The documentation produced can show you all the resource requirements as well as how smoothly work flows through the entire model.

Process simulation is one of the iterative steps in the development of an effective BPM system. Typically you discover the importance of analyzing the results of the simulation, make any necessary changes, and rerun the simulation — possibly several times.



BPM models provide the agility for you to continue to make improvements even after you've gone live with your implementation. You don't need to test endlessly. It's often better to plan for some continuous tweaking once your BPM system is in place.

Chapter 4

Improving BPM with Operational Decision Management



In This Chapter

- ▶ Making operational decisions at scale
- ▶ Understanding the power of natural language business rules
- ▶ Identifying the best policy with testing and simulation of business rules
- ▶ Uncovering real-time actionable insight



After you have an initial BPM project in place, you can gain even greater benefits by incorporating decision management technologies to increase process automation and facilitate maintenance of decision logic that guides business systems. In this chapter, you see what operational decision management (ODM) is and how you can use it to make your business process management (BPM) system even more efficient and responsive.

Decisions control the heartbeat of your company. Every day, critical decisions are made in every corner of your business. In fact, the repeatable, automated business decisions you make can be considered a tangible asset for your company.

These automated decisions determine whether your department will meet its goals, increase productivity, or grow your revenue. It's important to consolidate and make decision conditions visible to your business experts so you can control the outcome. This is done by pairing software to automate as

many of the operational decisions as possible, leveraging the experience and expertise of your subject matter experts and key knowledge workers to define what will be automated.

In this chapter, you look at how to use concepts such as business rules, events, and ODM to increase the speed and consistency of day-to-day, automated business decisions. As a business, you discover how to deal with these operational decisions that include such things as settling a claim, opening a bank account, or dynamically pricing a vacation package.

Introducing ODM

You may have very effective experts who make some critical decisions, but how do you scale these up? Typically one-off applications are written to automate these business decisions, but this becomes unmanageable quickly, especially when your decisions change often.

Claims policies may need to change every quarter, insurance rates may need to change every month, and there could be a new pricing promotion every week based on the occurrence of key events like an abnormally cold stretch (in a retail scenario). When hundreds or thousands of these types of decisions are embedded in an application, it becomes very hard to understand them and change them.

At the same time, these decisions are very involved and complex and must be made with all the expert knowledge in the company. They can't be coded and forgotten. What if you could have these types of operational decision making within your automated systems but with the fidelity and knowledge of your best expert? Clearly, there's no way to know the best way to handle them without externalizing them and making them visible end to end. That's where ODM comes in.



ODM makes it possible to take what used to be hard-coded rules and turn them into flexible ones that can be easily modified. This management is accomplished by using ODM to create business rules in natural language that can be read, understood, and changed by a business expert.



To see why you should consider implementing ODM, take a look at some of the benefits:

- ✓ **Agility:** You can quickly change policies instead of holding up operations for weeks and months waiting for an application to be recoded. You also decrease the costs of implementation.
- ✓ **Efficiency and productivity:** Business users' requests for changes have built-in collaboration with other experts, change management, and governance.
- ✓ **Decision quality and precision:** You can modify existing rules and perform what-if analyses to arrive at better decisions.
- ✓ **Consistency:** You can ensure that policies are uniformly enforced across business units or processing centers.
- ✓ **Transparency, auditability, and compliance:** You can look back and see why decisions were made and see how policies were changed and who changed them.

Unless there's a way to analyze and codify decisions, there's room for a great deal of confusion and miscommunication. Writing reams of specifications is a common response in the attempt to add clarity, but typically they're too hard to consume and keep accurate. Both business and IT teams clearly want to accomplish their goals, so what stands in the way? Here are some conditions that may apply:

- ✓ The expectations for the speed of making changes is very different between business and IT teams.
- ✓ Business teams don't know about the unexpected consequences of outdated business logic.
- ✓ Decisions can't always be detailed and stated precisely enough for developers.

Business groups and IT have to accommodate each other to keep things moving forward. Business rules make it easier for both types of departments to collaborate. The actual business rules can be directly written by the business, and IT manages the execution environment.

Understanding Business Rules Using Natural Language

A *business rule* is a statement of what will happen if a particular condition is met — or a particular event occurs. When you automate your decisions, you immediately reduce their complexity. You need to meet conditions to construct a business rule:

- ✓ It must use natural language like English or Dutch that your business experts use and yet must express unambiguous intent of the business expert.
- ✓ The natural language rule should be directly executable so the human readable rule is exactly what executes.

Business rules also have to be written to accommodate variables such as pricing, claims, and credit authorization. By using ODM, you have the flexibility to modify as necessary. The thing that makes modification easy is the use of natural language rules and the Decision Center repository where all these rules are stored and managed.

Natural language rules are written by using everyday phrases so they can be understood by all business users. You don't have to be a programmer to create or understand them. They have a distinct advantage over non-natural language rules because they're

- ✓ **Easily understood:** Natural language rules can be read and understood by business people.
- ✓ **Easily modified:** Externalized rules are easily changed.
- ✓ **Reusable:** Centralized rules allow reuse and consistency.

Testing and Simulating Business Rules

One of the key aspects of dealing with business rules is the need to modify them when necessary. In many cases, you're dealing with data that could impact millions of customers or processes. For this reason, every good businessperson knows

that testing or simulating a solution before going live can avert disaster. By running what-if scenarios, you can make adjustments until you achieve the results you expect.

ODM provides users with an easy and flexible way to accomplish that. You have the option of creating simulations using all types of data available to you to ensure success. When selecting a scenario to simulate, make sure that

- ✔ **You first establish a business goal.** This will help clarify your reason for making the simulation.
- ✔ **You set parameters for the simulation.** You want to understand the scope of your test.
- ✔ **Your goals can be achieved by modifying a specific rule or set of rules.** You want to be able to apply the simulation using variables that are under your control.
- ✔ **You know how you will measure the goal.** This is key to understanding what the impact will be.
- ✔ **You know how you will communicate the outcome of the simulation.** Be clear about how you will report your findings after you obtain them.

The value of using natural language is that the rule can be written so business users can understand and modify it. This means that business users can use their business vocabulary to describe what the rule should be. These vocabularies are set up once by the IT department at the beginning of the project, and they enable business users to combine them to create new rules and make updates through the life cycle of the project.

Uncovering Real-Time Actionable Insight

Key to decision making is the ability to uncover unique insights. Does this customer have a high propensity to buy because he's engaged with your organization in several distinct but unrelated activities? Or is this patient in danger for health complications based on the combination of medicines that she's currently prescribed? Not only that, but also insights need to be something that can be immediately acted on.



ODM is key to helping uncover real-time actionable insights. And here's why: Decision making can be broken up into several stages:

- ✓ Sense what's happening.
- ✓ Build your context.
- ✓ Decide what to do.
- ✓ Act quickly and consistently.

And ODM is key to several of these steps (or has a key hand-off to the others).

The event capabilities within an ODM platform help capture data points and events of things happening both inside and outside your firewall. Supporting capabilities like context computing can then take those data and events and put them into context to help understand and evaluate how everything relates.

Business rules and analytics then drive the actual point-in-time decision. For example, streaming analytics can enhance your decisions by providing analytics of data in motion, such as geospatial position. Your decisions are made smarter as your business rules are enhanced with up-to-the-second analytics. Lastly, integration with tools like a Business Process Management System (BPMS) provide you with the ability to act when and where you need to over a given period of time.

Chapter 5

Applying Cognitive Technology to BPM

In This Chapter

- ▶ Understanding current marketplace trends
- ▶ Getting to know cognitive systems
- ▶ Infusing cognitive technology into your everyday business operations
- ▶ Seeing real-world examples of cognitive business operations

Today's marketplace is more competitive than ever. You need every advantage to make sure your company can keep existing customers and win new ones. This chapter introduces cognitive technology and discusses how you can combine it with a business process management (BPM) solution to improve interactions with your customers, better prioritize and route work, and react faster to take the right action at the right time.

Recognizing Marketplace Trends

The need for cognitive technology is being driven by three marketplace trends:

- ✓ **Rising customer expectations:** Customers have high expectations for simplicity, speed, and value from every interaction. They're looking for robust self-service capabilities and expect employees in service-related functions to be empowered, efficient, and understanding of their particular needs.

- ✓ **Increasing amounts of data:** Eighty percent of the vast and growing amounts of data collected from social networks and connected devices is unstructured and unable to be interpreted by existing systems.
- ✓ **Shortage of skilled knowledge workers:** The worldwide shortage of highly skilled knowledge workers is projected to reach 40 million by 2020. Organizations need to find a way to augment the knowledge of all their employees to make everyone, regardless of experience, perform at the level of the smartest and most experienced workers.

Understanding Cognitive Technologies

Over many decades, business has been digitizing and building networks to connect the world around us. Social networks are a new channel of information, and the Internet of Things is connecting all the world's devices. But a turning point has been reached where the volume of information is so vast that we can no longer use it productively. Enter cognitive computing, which represents a huge leap forward, presenting humans with the ability to extend their expertise and knowledge gleaned from information. The cognitive era is about thinking itself — how you gather information and use it to make decisions — and allows a partnership between man and machine.

Humans have inherent skills that help them learn, discover, and make decisions. You apply common sense, morals, and reason; you can think of new ideas and make generalizations when pieces of information are missing. But you're held back by the time it takes to learn, process, and absorb new information and limited by the unconscious biases you possess that influence your decisions.

Cognitive systems help you understand the world differently and make better decisions. They capture the expertise of top employees and accelerate development of that expertise in others. They also scale the expertise by quickly elevating the quality and consistency of decision making. As a result, they help you

- ✓ Improve your processes and operations
- ✓ Enable new kinds of engagement

- ✓ Create better products and services
- ✓ Accelerate your ability to explore and discover as a business
- ✓ Enable new business models

Cognitive systems can understand, reason, and learn:

- ✓ **Understand:** First, understanding is the ability to navigate the complexities of human speech — understanding idiosyncrasies and colloquialisms, and knowing the ways we all express ourselves. Secondly, it is the ability to put content into context — not search and keyword — but actually bringing forward relevant, actionable content.
- ✓ **Reason:** There are very few times where we, as humans, are presented with information that's useful without having to infer from the data to extract what we need for our purposes. In doing so, you're reasoning with a purpose — often generating a hypothesis and then proving out the theory. This is reasoning something cognitive systems can do.
- ✓ **Learn:** Cognitive systems get progressively smarter with each outcome, action, iteration, and with each new piece of information.



Together these attributes allow cognitive systems to understand data — structured and unstructured, text-based or sensory — in context and meaning, at astonishing speeds and volumes. Cognitive systems are able to put content into context, providing confidence-weighted responses with supporting evidence. They're also able to quickly find the proverbial needle in a haystack, identifying new patterns and insights. Over time, cognitive systems will simulate even more closely how the brain actually works.

Introducing Cognitive Business Operations

The next evolution of business process management is Cognitive Business Operations, IBM's approach to infusing Watson cognitive technology into your everyday business operations, so you can provide improved action at the right time in the right way.

A BPM solution enables you to automate, monitor, and optimize your business processes to increase efficiency, reduce costs, and improve the customer experience. By adding cognitive services into the various steps in a process, you can supercharge your BPM platform so it understands, reasons, and learns from structured and unstructured data.

Harnessing formerly undiscoverable insights, you can identify and resolve issues that your organization was previously unaware of — while shortening the path to decision and action. As a result, your business operations, processes, and decisions get smarter the more you use them, leading to transformative customer experiences that will drive growth and operational improvement.

By combining cognitive with BPM, you can deliver the following:

- ✓ **New ways for customers to interact with your services:**
With cognitive insights from data, you can further automate more process interactions and provide more personalized answers within self-service applications.
- ✓ **More effective prioritization and routing of work:**
Cognitive technology can automatically determine — from a large flow of data — who the most appropriate person or process is to handle a specific task. You can spend less time determining who can solve the problem and more time on the resolution.
- ✓ **Improved productivity of knowledge workers:**
Searching for information can take up half of knowledge workers' time. It can also take new employees years to build the experience and wisdom of those who are more seasoned. Cognitive can significantly reduce the manual search time and give newer hires the information that would take months or even years to know otherwise.
- ✓ **Increased accuracy and speed of decisions:** Watson is able to digest and make sense of data much more quickly than a human. It can also identify insights from unstructured data that otherwise would've gone unseen, which leads to decisions that can be made quicker, with more confidence.



These capabilities are available as services in the cloud, making them easy to consume and requiring low upfront investment. Look for ways in which you can apply cognitive capabilities to your business operations. Is there a process that could benefit from further automation not possible with BPM alone? Are there decisions that could be improved with additional information from unstructured data? Whether that's pulling insights from videos and social media feeds or arming employees with more context, your BPM can greatly benefit with the addition of cognitive technologies.

Examining Real-World Examples

In this section, you take a look at how early adopters of Cognitive Business Operations are utilizing the technology across a range of industries to vastly improve their frontend and backend business processes and decisions.

Enhancing hiring practices

Recruiting managers faced with dozens of openings and hundreds of resumes typically spend enormous amounts of time trying to identify the best candidates based on intuition and the limited tools at their disposal. Imagine the impact, not just to the recruiting manager's efficiency and effectiveness, but to the entire enterprise, if there was an option of digging deeper at the very outset of the recruiting process. With cognitive business operations, managers can go beyond the formal attributes of a candidate, such as their degree and years of work experience.



By combining and integrating the Watson Personality Insights API — which applies linguistic analytics and personality theory to infer attributes from a person's unstructured text — with an HR process running on IBM BPM, unstructured information from candidates' cover letters, emails, or if accessible, social information, such as their tweets from the past several years, quickly brings insights about their character, strengths, and weaknesses into sharp focus. This new insightful information allows recruiting managers to have an additional cognitive source of advice to make improved decisions and hire the best person for the job.

Managing insurance policies

Insurance companies want to provide a fast and simple way for customers to apply for and manage policies. By combining IBM BPM and IBM Operational Decision Management (ODM) with Watson cognitive services, providers can deliver new online interactive engagement services with the ability to provide cognitive dialog with customers to understand their needs and provide product recommendations to best meet those needs. They can provide a precise quotation without the need to call or speak to an underwriter. In this scenario, IBM BPM manages the underwriting process once the initial cognitive interactive interaction has been completed with the customer. IBM ODM can be used within the cognitive interaction as well as deciding eligibility and pricing within the underwriting process for a given customer profile.

Sorting through emails

Banks face an influx of emails every day that cover a wide range of topics, priority levels, and required expertise. It's time-consuming and resource-intensive to read these emails, understand the customers' requests, and route them through the appropriate process or to the correct resource for follow-up. A cognitive solution can be implemented to provide better assignment of work by

- ✓ Utilizing Watson's Natural Language Classifier service to analyze and categorize the email unstructured content
- ✓ Making a business decision using IBM ODM capability, which uses the classification to decide how best to route the email
- ✓ Automatically assigning the task to the best person or business process running on IBM BPM to handle

Additional prioritization functionality can be added by using Watson's Tone Analyzer to better understand the customer's disposition (positive or negative) to improve the information available for the ODM-based routing decision to reroute to escalate requests when necessary.

Chapter 6

Looking at BPM Success Stories in the Real World

In This Chapter

- ▶ Cutting business process development times
- ▶ Achieving superior service
- ▶ Eliminating geographical boundaries to improve efficiency
- ▶ Creating opportunities for KPMG with IBM Business Process Manager
- ▶ Improving patient care

If you're reading this book straight through, you've likely read Chapter 3. There we discuss how to put BPM to work for your organization. In this chapter, we want you to know how BPM was successful for other folks, too. Between the two chapters, you get some great reasons to choose IBM's BPM solution for your organization.

Bankadati

Servizi Informatici Bankadati (Bankadati) is an Italian technology service company for a banking group that encompasses three retail banks with 540 branches and 4,300 employees. As Bankadati moved to a customer-centric business model, Matteo Pizzicoli, head of business optimization, sought an IT infrastructure to streamline process development and command a product-centric approach to serving its customers.

But Bankadati had been undergoing a fundamental shift for years. Its customers — not technology — were driving

the company's strategic path, which was a new model that demanded unprecedented IT and process flexibility and agility.

To help find a solution, the company implemented IBM Business Process Manager and IBM Operational Decision Manager software to speed the deployment of customer-facing and operational processes. The company had to reimagine its digital processes and customers' banking experience, so Pizzicoli helped choose IBM because "... we look at the IBM solutions as great business accelerators, because they allow us to react quickly in response to a fast-changing business and regulatory environment."



What was the benefit of using these IBM solutions? Business users could deploy solutions directly, and Pizzicoli and his team deployed process solutions in just four hours instead of the 50 days or more it used to take! By using the Operational Decision Manager software, Bankadati reduced the number of processes that required formal authorization by 60 percent. This reduction freed IT resources to work on complex processes and improved customer service levels. It also contributed to a 99 percent reduction in the time needed to develop and deploy low-complexity business processes.

Barclays

Barclays operates in more than 50 countries, serving nearly 60 million customers worldwide with banking and financial services. The company does business with customers in many ways: mobile, online, or at branch locations. Improving the customer experience at every touchpoint was a large undertaking. Mike Gamble, director of operations at Barclays, stated that "with 400 identified customer journeys, we needed to find a way to align them across the enterprise and move at a pace that impacts the customers in a positive way really quickly."

For Gamble, improving customer journeys at Barclays meant transforming customer processes. He needed to improve the understanding of how various functions were involved in delivering customer experiences and then accelerate the roll-out time of these new processes to achieve the end goal for the customer.

So what was the solution? Barclays adopted IBM Business Process Manager and IBM Blueworks Live software to create an environment for multiple iterations and accelerate process rollout. This improved the visibility and control of customer processes. With the Business Process Manager software, Barclays incorporated discipline in how the bank thought about customer journeys — to understand how it documents them, how well in control the bank is of those journeys, and how the customers feel about them. Barclays used the cloud-based Blueworks Live software as the central repository to document customer journeys. Staff can access the repository worldwide.



From the IBM implementation, Barclays realized the following positives:

- ✓ New automated multichannel customer processes
88 percent faster
- ✓ Increased customer satisfaction around automated, multichannel services from a negative Net Promoter Score (NPS) to an NPS of 70
- ✓ Assessed and built an automated process for reporting lost or stolen debit cards and deployed the same process across the different lines of business globally
- ✓ Analysis of 2.2 billion transactions annually for fraud
- ✓ Ability to identify the need to cancel payments on the first fraud hit and use Short Message Service (SMS) to contact the customer

With new capabilities to improve customer journeys, the bank now truly offers customer-centric experiences.

KeyBank

To more efficiently process accounts payable, cut costs, and respond to changing customer needs, KeyBank decided to transform its processes with a business process management (BPM) and enterprise content management (ECM) platform. Ayo Falokun, vice president of the BPM and ECM Competency Center for KeyBank, said, “Customers coming to our bank expect the same kind of responsiveness that they get from sites like Amazon and the same quality of service. We need to

be able to quickly provide them with solutions that meet their needs.” KeyBank experienced the following common banking industry challenges (which led to adopting the IBM BPM solution):

- ✓ Increased competition
- ✓ Pressure to cut costs
- ✓ Changing customer needs

Working with IBM Software Services for WebSphere, KeyBank created a BPM solution that included IBM Business Process Manager and IBM FileNet Content Manager software. With the IBM Business Process Manager software, Falokun’s team could work more closely with the business while gaining greater visibility into and control over its processes.



How did this fare for the bank? Using the IBM BPM platform, KeyBank saved over \$300,000 in one-time software acquisition costs and achieved ongoing annual savings of more than \$200,000 from efficiency gains, productivity improvements, and reduced labor costs through process automation. In just four and a half months, the bank implemented the BPM and ECM solutions that transformed its accounts payable processes by eliminating geographical boundaries through a centralized, paperless process. Falokun estimates that such solutions typically take around 12 months to create, so the bank cut the amount of time by 63 percent.

KPMG

Following the financial crisis, the UK banking sector faced a tidal wave of regulatory change and banks were front-page news nearly every day. Headlines screamed how bank staff had inappropriately sold Payment Protection Insurance (PPI) and Interest Rate Derivative products to customers. Many folks with mobile phones were receiving SMS from claims management companies, offering to help them recover their PPI money from the banks.

Financial regulators were carefully scrutinizing the actions banks were taking to remediate these issues, as well as introducing tighter “know your customer” and anti-money laundering regulations. In addition, new regulations such as the Foreign

Account Tax Compliance Act (FATCA) began requiring banks to report to U.S. authorities about their U.S. customers.



Banks and financial service providers, such as KPMG, a global network of professional firms providing audit, tax, and advisory services and operating in 155 countries and employing 155,000 professionals working in member firms around the world, needed to address the issues within tight deadlines. The potential size of customer payouts and regulatory fines were regular boardroom agenda items, so the stakes were high and couldn't be ignored. One particular requirement was the ability to orchestrate the complex interplay of internal bank and external customer events. For example

- ✓ Managing communications through all channels (including calls, email, SMS, and written correspondence)
- ✓ Guiding processes through very complex end-to-end workflows
- ✓ Managing not only the customers' data but also all the documentation associated with their cases

So KPMG decided to offer UK banking clients a quick-to-deploy, end-to-end solution to meet their post-financial-crisis regulatory needs and deal with continual business change.

"We needed a solution that had the right delivery capability," says Natalie Semmes, partner at KPMG. "But it is not just about getting a new process up and running; it's about managing that process over time and making sure it can scale to support potentially thousands of users at any given time." KPMG had to select a vendor that would help it achieve strategic outcomes.

KPMG selected IBM Business Process Manager and enhanced it by developing an optimizer application. This combined "BPM-O" solution improved speed to market for both solutions and change.



The first client deployment that used IBM Business Process Manager and BPM-O went live in four weeks for 56 process steps, and the solution quickly scaled to 1,400 business users. Change cycles for small changes were reduced to days rather than weeks and were driven by the business, not by an IT prioritization queue. Business analysts harnessed subject-matter

expertise and created new business processes 80 percent faster with BPM-O than they could with a more traditional BPM programmer skill set.

The Ottawa Hospital

Formed in 1998 through the merger of five different health institutions, The Ottawa Hospital (TOH) is one of the largest academic teaching hospitals in Ottawa, Ontario, Canada. With four campuses throughout the city, the hospital has approximately 1,200 beds, 12,000 employees, and 1,500 physicians.

TOH was admitting a growing number of patients with complex symptoms. Care teams were struggling to compensate for manual processes that could be highly variable. So the management and board of directors set an aggressive goal — TOH ranked within the top 10 percent among academic health science centers in patient care and quality in North America.

To achieve that goal, the hospital needed to be able to manage, measure, and improve its performance in several key metrics. Over the years, TOH dealt with numerous challenges. Occupancy rates, for example, grew to 110 percent and kept climbing. At the same time, the hospital saw an increase in the complexity of patient conditions. Patients with complex conditions require care from multiple departments that must be able to communicate and collaborate effectively.

TOH found that with this increased complexity, healthcare professionals were spending more time searching for information and resources and spending less time with their patients. As a result, patients could experience delays in their care, which impacted the overall patient experience. This increased complexity also placed a significant burden on the care providers to make sure they had all the information they needed before making decisions and treating patients.

The solution? TOH sought IBM's BPM expertise. IBM provided a care management platform that improved coordination of and visibility into the changing patient and hospital conditions. This allowed practitioners to collaborate and spend more time with patients. A comprehensive care process management platform rolled out with the goal of improving

patient flow, safety, quality of patient care, and the overall patient experience.

Designed to be easily extensible, the care process management platform builds on features in the IBM products to help improve patient flow and other operational processes. Some key features of the care process management platform included

- ✓ Closed-loop communication capabilities to ensure in-process communications were properly sent, received, and acted on
- ✓ The ability to view and maintain a patient's "circle of care," a simple, easy-to-use visual interface that identifies the providers involved in a patient's care and facilitates communication and collaboration between them
- ✓ A multi-disciplinary activity plan that enables providers to assign tasks, monitor activities, and gain visibility into the entire chain of activities
- ✓ Metrics for tracking process execution that can then be benchmarked against historic and real-time data, so information from processes that are currently running can be used to make immediate, more-informed decisions



The use of the IBM solution at TOH helps care personnel and hospital administrators improve patient flow, ultimately improving patient outcomes and delivering a more positive patient experience. "Personally, I am going to spend more time focusing on the right things and less time focusing on the mechanics, the bureaucracy, the paperwork, and other things," says Glen Geiger, Chief Medical Information Officer. With the ability to drive out the inefficiencies and free up clinicians to do the things they ought to be doing, patients get better care.

Travis Perkins

The digital revolution finally reached one of the United Kingdom's last bastions of traditional brick-and-mortar retail — the builders' merchants market. Travis Perkins is a public British builders' merchant and home improvement retailer based in Northampton. It operates over 2,000 outlets

and has more than 28,000 employees in the United Kingdom and Ireland.

To face the business challenges of these changes, Travis Perkins needed to develop a mobile and web-based buying experience for a new generation of customers, which exposed deficiencies in its data governance processes. In order to correct these deficits and deliver an omnichannel journey, Travis Perkins chose IBM Business Process Manager on Cloud to control essential data processes — without approval processes that proved too restrictive. And the results? Travis Perkins was able to

- ✔ Institute multiple high-level data governance processes
- ✔ Improve data collection, quality, and validation
- ✔ Access actionable customer behavioral data and market intelligence

Chapter 7

Ten Reasons to Choose BPM from IBM

In This Chapter

- ▶ Discovering the top IBM BPM differentiators
- ▶ Making IBM your choice provider

In this chapter, you get ten reasons to make IBM your smart choice in providing a business process management (BPM) solution for your organization.

Ease of Use and User Experience

IBM provides superior total cost of ownership compared to other BPM solutions. Your operational costs are reduced because IBM provides consistent and scalable runtime architecture across capabilities. Your cost of change is reduced based on architected points of agility, so for some changes, IT development cost can be zero and for others it can be very minimal.

IBM BPM provides a rich, interactive, responsive, and graphical user interface, and the latest inclusions are

- ✓ **Enhanced web-based developer tools:** These enable process developers to create compelling business user interface without deep technical skills.
- ✓ **Process Portal and coach-based responsive UI that adapts to the user's chosen device:** Business users can perform tasks on their smartphone, tablet, or desktop computer, which enables them to work away from the office by using mobile devices.

Dynamic SOA and Integration Capabilities

IBM's Service Oriented Architecture (SOA) enables you to build agile solutions based on dynamic SOA capabilities. With IBM you can capture business logic with XML/metadata rather than requiring the use of traditional programming languages. This ability allows you to support multiple and greater degrees of abstractions and capabilities so you can be more agile and flexible. This agility extends to service selection, rules, business events, business service policies, and business services. You can manage change with confidence. For more information on integration, check out Chapter 2.

Flexible Deployment Models

IBM BPM is available on various flexible deployment options. Whether the need is to have it on-premise, in the cloud, driving needs from a pure systems patterns perspective, or capabilities of IBM Bluemix, IBM BPM offers

✓ **On-premise:** IBM Business Process Manager can be used almost immediately in its standard configuration or in an easily customizable configuration. It has three specific flexible deployment models:

- **IBM BPM Express:** This model is an affordable entry point for initiating BPM and provides an easy-to-use interface with a process execution, monitoring, and optimization engine.
- **IBM BPM Standard:** This model is a comprehensive BPM platform, providing full visibility and insight to managing business processes.
- **IBM BPM Advanced:** The advanced model is a unified platform for analyzing and improving business operations through a combination of business process and basic case management, SOA, and business process analytics.

- ✓ **IBM BPM on Cloud:** This subscription-based BPM cloud service offers visibility and management of business processes, low startup costs, and fast return on investment (ROI).
- ✓ **Integration on the glass:** Combine your existing investments in packaged solutions like SAP by using external activities to integrate them into your BPM business processes. Launch external applications directly from the Process Portal.
- ✓ **IBM BPM Industry Packs:** An extension that helps accelerate and enhance process management for the banking, healthcare, and telecommunications industries.
- ✓ **Integrated case management capabilities:** Case management capabilities are now made standard in all editions of IBM Business Process Manager with new web-based developer tools to model, validate, and play back cases using Business Process Modeling Notation (BPMN).

Integrated BAM Capabilities

IBM's solutions make measurement and insight into action easier. They provide the ability to put control and change management into the hands of business users. IBM provides advanced, real-time predictive analytics and drill-down business activity monitoring with predictive key performance indicators (KPIs). In addition, they provide predefined industry KPIs.

Advanced Programming Model

With the IBM BPM solutions, you have fine-grained control over individual process instance execution through an infrastructure and programming model that leaves your business in a consistent state at all times. IBM provides process transactional integrity combined with advanced programming models and runtime features.



The IBM BPM operational environment runs in a highly available, secure, and disaster-recovery-enabled mode so you can run very complex and mission-critical applications with confidence.

Scalability and Performance

IBM BPM solutions provide you a robust, secure, and scalable environment that supports a wide range of platforms. The IBM BPM solutions are built for expansion and growth to handle your future needs. These solutions include high availability with both vertical and horizontal support.

The new Process Federation Server enables a third dimension for massively scaling IBM BPM, and when used with the federated Process Portal, it can also be used to migrate and isolate processes without impacting the business user experience.

Documenting and Running Processes in the Cloud

Blueworks Live's ease-of-use, browser-based delivery, and Wiki-like structure allow stakeholders inside and outside your organization as well as across functions, campuses, and even oceans to collaboratively participate in process improvement. Blueworks Live takes the practice of process from the hands of the few and spreads it throughout your organization. In effect, the Blueworks Live platform becomes the central communication platform for collecting, sharing, and improving how work gets done in your organization.



But don't take our word for it. Register today for a free 30-day trial at www.blueworkslive.com/signup/trial.

IBM BPM can also be deployed in a cloud model. Some of the capabilities include the following:

- ✓ **IBM Business Process Manager** helps eliminate typical inhibitors to starting BPM projects, such as capital expenditures, hardware availability, and the skills for developing and managing systems.
- ✓ **IBM Business Process Manager on Cloud**
 - Provides a full life cycle BPM environment, including development, test, and production — with tooling and runtime for process design, execution,

monitoring, and optimization. It's designed to help business users get started with process improvement quickly — often in less than 48 hours — without the need to build and maintain an IT infrastructure.

- A subscription-based service that offers visibility and management of business processes, low startup costs, and quick ROI. IBM BPM on Cloud delivers migration consulting services that can assist you in the migration of a BPM application from an on-premise BPM environment to IBM BPM on Cloud. Explore BPM on Cloud with a free 30-day trial by visiting <https://www.bpm.ibmcloud.com/#trial>.

Operational Decision Manager

IBM Operational Decision Manager offers business rule management that adds flexibility and performance to your business systems by enabling powerful decision automation across processes and applications. Its tools include the functionality to support rule definition, deployment, maintenance, and governance with specific environments for technical and nontechnical users who participate in rule management. In addition, IBM provides best-in-class rule execution capabilities that can run on a wide range of operating systems and platforms, enabling enterprise-wide decision automation.

IBM Operational Decision Manager supports advanced business event processing capabilities for detecting, evaluating, correlating, and responding to patterns of events that can occur over time. These capabilities are exposed through graphical, nonprogramming user interfaces, allowing IT to manage the business event environment, while equipping business users to manage the event definitions.

IBM ODM is also available in a monthly subscription. This service provides everything you need to develop, test, and put rules into production, the IBM tooling, governance capabilities, and powerful rule engine. It's available exclusively on IBM Cloud infrastructure, managed by IBM, and delivers the market-leading Business Rules Management System (BRMS) benefits that are similar to those available in IBM ODM Standard.

With IBM ODM on Cloud, you're entitled to on-demand consulting subscription options with IBM to accelerate and support your decision design and implementation. Explore ODM on Cloud by visiting www.bpm.ibmcloud.com/odm/#home.

For more information on ODM, head back to Chapter 4.

Extending BPM with Cognitive Insights

IBM is boosting its BPM by combining it with cognitive technology. While the market-leading BPM capabilities continue to help organizations automate, monitor, and optimize their business processes, the cognitive capabilities being added will enable processes and decisions to

- ✓ Learn from structured and unstructured data to improve the quality and consistency of decisions
- ✓ Enhance the aptitude and effectiveness of knowledge workers
- ✓ Deliver exceptional customer experiences

While these cognitive capabilities may seem out of reach, the technology is available and accessible today. For organizations just getting started with BPM, adopting Cognitive Business Operations isn't significantly more involved or difficult to roll out, yet provides capabilities and insights not available in any other way.

IBM offers a variety of workshops and pilot programs, led by BPM and cognitive experts, to guide customers through their process improvement journey. By combining its technology with the depth and breadth of its expertise, IBM can help you design, plan, and implement Cognitive Business Operations in your organization, either as a pilot or enterprise-wide. For more information on Cognitive Business Operations, check out Chapter 5.

Beyond Technology, Assuring Success with IBM Professional Services for BPM

Being successful at BPM requires more than cool technology. BPM calls for upfront strategic thinking about where the organization is heading and where BPM fits into this journey. IBM Professional Services for BPM consists of skilled consultants with deep process modeling and technical skills gained from countless engagements that ensure that you start off your BPM journey on the right track. The name of the game is quick, small successes that can be easily scaled across the organization, and IBM consultants bring with them proven methodologies and best practices that help you achieve your objectives.

Give your organization the edge it's been looking for

In today's dynamic business environment, your organization needs to be ready to turn signals from the marketplace into strategic plays. BPM helps you quickly find and execute on missed opportunities trapped inside day-to-day operational processes. By unleashing the power of technology as a competitive advantage, your entire enterprise becomes far more agile, helping you meet your business goals. BPM creates value through growth, improved performance, better productivity, higher staff effectiveness, and better business outcomes.

- **Apply BPM principles** — to help your enterprise increase its productivity
- **Take advantage of the new market opportunities** — with BPM, you can be a market maker and leave your competition behind
- **Reach the global market** — BPM streamlines your business operations to take advantage of new opportunities for better business outcomes
- **Enter the Cognitive Era** — Watson-enhanced BPM accelerates process innovation



Open the book and find:

- An overview of BPM
- The benefits of BPM
- The requirement for BPM to transform organizations
- How to adopt BPM with controlled costs and flexible deployment options
- Successful examples of BPM adoption
- How to apply cognitive technology to BPM

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