Business Process Discovery

This paper, based on a webinar by BPM analyst and blogger Sandy Kemsley, provides an in-depth look at process discovery. It covers drivers for process improvement and provides how-to information on:

• Analyzing current processes and doing walkthroughs
• Identifying opportunities for process improvement and automation
• Moving from a functional viewpoint to a business process viewpoint
• Discovering “hidden” processes in emails and manual procedures
• Process prototyping
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About the Presenter / Author
Sandy Kemsley is an independent BPM architect and blogger specializing in BPM design, enterprise architecture, and business intelligence. In addition to her technical background, she has significant knowledge about business operations and is often involved in BPM projects from business requirements and analysis through technology design and deployment. During her career of more than twenty years, she has started and run successful product and service companies, including a desktop workflow and document management product company and a 40-person services firm specializing in BPM and e-Commerce. She worked for FileNet as Director of eBusiness Evangelism and was a featured speaker on BPM and its impact on business at conferences and customer sites in fourteen countries during that time. Since 2001, Sandy has returned to private consulting practice as a BPM architect, performing engagements for financial services and insurance organizations across North America. She also writes the popular Column 2 blog.

1. Drivers for Process Improvement

There are a number of reasons why organizations start process improvement projects. In many cases, the driver is competitive pressure. Your competitors are doing something better or faster or cheaper than you are, and you need to improve your business processes to survive in the marketplace. Or maybe you’re the leader in a marketplace and you need to stay agile and efficient in your business processes to maintain your leadership. Competitive pressure is one of the key reasons people are looking at process improvement and eventually moving on to implement business process management systems.

If you have a quality management initiative within your company, this can also be a big driver for examining and improving your processes. Quality management, or business performance management, isn’t just a set of isolated quality measures like it used to be. Most of the current techniques are really about improving your business performance through the improvement of your business processes. Different quality management methodologies have evolved from different origins, but they all have a common goal and although that was originally the improvement of quality, it’s now very focused on the improvement of processes. It’s based on the understanding that process improvement will result in quality improvement within your organization. It doesn’t matter whether you’re doing Six Sigma or ISO 9000 or CMM or whatever quality management initiative you might have in place, it will almost certainly result in some sort of examination of your business processes.
and probably some drivers to improve those business processes, possibly to automate them using BPM.

Regulatory compliance can also be a key driver. SOX compliance, HIPAA compliance, or whatever might apply to your particular industry in the countries you operate in, can be drivers for process improvement. What will happen in many cases, and we saw a lot of this during all of the SOX implementation, is organizations scrambled to get regulatory compliance in place. But as they did that – stepped back, took a breath, and looked at what they had done – they saw that there were opportunities for process improvement that went beyond just becoming compliant with the regulations. In some cases, just the act of looking at processes for one reason, in this case regulatory compliance, gets people to think about their business processes and how they might be improved. It’s also true that regulatory compliance is all about making sure that your business processes are compliant. The way you’re going to do that is to look at some ways to improve those processes so they’re always done the same way, so you can document that they’re always done the same way, and potentially automate some of the things you do so it is a bit easier to stay in compliance.

Another major driver, and we’re seeing a lot of this lately, is that people are looking at processes in the context of service oriented architecture initiatives that are going on within their organization. These are often driven from the IT department. By looking at the services that the IT department might want to build to provide functionality or provide wrappers around some of your legacy systems, you’re going to be looking at what processes will be consuming those services. Services, on their own, aren’t all that useful. You need to have the ability to consume those services as part of a business process. By developing services and modeling your entire enterprise architecture, you’re going to be taking a look at your processes and potentially finding ways you can improve those processes along the way.

The last driver I want to highlight, and this is related to quality management, is corporate performance management. This is more of a high level dashboard view of things. Back in the 80s we had decision support systems. It’s about providing ways for the executive management of a company to access information about what’s going on within their organization. These corporate performance management systems, which are based on dashboards and business intelligence, want to roll up certain information to a higher level, probably presented in some sort of graphical view, but you need to have processes feed into that. The measures you see within these performance management tools will indicate places where you might require some process improvement.
These are just five of the main drivers you’ll find for process improvement, and you probably have more than one of these going on within your organization, if you’re in an organization of any significant size.

2. Analyzing the As-Is

Where we start out, typically, is analyzing the as-is process. We went through a period of time, back in the 80s or early 90s with the whole business process reengineering phase, where the idea was to throw out your old process completely, not even look at it, and take a blank piece of paper and invent your new process. Nobody really does that anymore, because it was too radical and it was really a matter of throwing the baby out with the bathwater. You were giving up so much good stuff that was already in place. You want to be able to leverage the good things you have in your current processes, but without having a slavish commitment to maintaining those processes just because “it’s always been done that way.”

When I do walkthroughs in an organization, I will look at a process and ask, “Why do you do that? Why do you do that inefficient step in your process?” In many cases, the answer is, “Well, we’ve always done it that way.” Or “We need it to generate information for a specific report.” And then you find out that the report isn’t used. Just analyzing the “as-is” process can point out all kinds of places where you can make some improvements.

So, doing a walkthrough and analyzing your current business processes is part of any process improvement project today. But you need to make sure you’re not spending too much time analyzing the current state. You’re going to be changing it. You need to gather enough information so you have a good idea of what’s happening now and understand what the major pain points are in a process – what are the things that people are having a hard time doing?

I always look at where people are using Excel spreadsheets and paper logs and building their own Access databases to get around the ways their processes and their systems work now. That will often point you to places in the business process that are inefficient. A walkthrough is really a fundamental tool for any business analyst and, although they’re ostensibly done to observe the business that is currently running, you can do a lot more than that during a walkthrough. Even on a quick walkthrough, you can observe how corporate culture impacts the behavior of individuals within the organization; you can see whether peers
interact in a cooperative or competitive manner; whether managers use fear or other domination techniques to get things done. You can also hear how people talk about their peers and their managers, their executives, and the organization in general. So get a good idea of the corporate culture while you’re doing that walkthrough. You can also hear how people feel about change and technology, which is going to give you an idea of what sort of barriers you’re going to encounter when you eventually get down to implementing some of these improved processes, whether it’s changes to a manual process or bringing in a business process management system to help automate some of the processes.

These are all important factors in understanding the non-technical issues that might impact the success of your BPM projects. Later on in the process analysis and design phases, you can come back to the same people you might have worked with during the walkthrough and elicit requirements for process improvements from them. They’re not going to tell you what they need, because they’re not trained to think like that. They’re going to tell you what’s wrong with the process now or what another system they used to work with did or how they think a new system should be designed. If you’re the analyst doing the walkthrough, it’s your job to dig the requirements out beyond what they’re saying. All of this, the walkthrough and the requirements solicitation, is a spectrum of activities that you’re going to do with people that starts with analyzing the as-is process.

3. Discovering Hidden Process Improvement Opportunities

One of the things we can look at with process improvement is all kinds of hidden process improvement opportunities. The walkthrough is going to show you the main or standard business processes. You’ll look at how things move from one place to another, how paperwork flows through the office, how the system manages the flow through the office, but there are all kinds of other things that might be a little harder to dig out. What we want to look at is not just things that might be controlled by systems in your environment, but all sorts of things that are done in an ad hoc manner. People will do all kinds of logs with Excel spreadsheets. They might even create their own little workflow with Excel spreadsheets, which I have actually seen. Email is another one – people email things around as part of their process flow, but they might not think to tell you about that when they’re being interviewed about what they do in their day-to-day job. Looking for all of these processes is one of the places where you can look for process improvement. You’d be amazed just how much time people are
spending sending emails, responding to emails, for things that are really part of their standard business process – things that possibly could be built into some sort of BPM requirement for automating or should be looked at in a different way. Again, you’re looking for things that are important for people to get their job done and that contribute to the bottom line.

What we need to look at then, as we’re going through and finding these hidden opportunities, is how we move from the as-is analysis to the to-be opportunities. We look at all of these hidden opportunities – the emails and spreadsheets and manual processes and paper logs and all of that stuff they’re doing just to get their job done – and it’s a matter of bringing those together and trying to find ways you can do the process differently to eliminate some of those steps or automate some of those steps or just make those steps easier in some way. When we talk about process modeling and process design in other webinars/papers in this series, we’ll get into some of the specifics of how to do that, but process discovery is a part of that. We’re trying to find those processes that are hidden in the organization and expose them so we have the opportunity to improve them.

4. Process Improvement

There are many different types of process improvement. I will be focusing on three. These come from a book written by Tom Davenport, who’s a professor at Babson College. His book on process improvement is one of the best references I know. The book was written several years ago, so the technology portions of the book are not up-to-date, but he has some great ideas about how to classify the process improvements you can look at in your organization. Of the nine areas of process improvement he discusses, the three that really struck me as having the potential for a major impact on your processes are automation, geography, and disintermediation.
AUTOMATION
Being able to automate parts of your process – whether it’s through your service oriented architecture or any kind of automation that might have the system doing steps instead of having people do steps – has the potential to improve processes.

GEOGRAPHIC IMPROVEMENT
Geographic improvement involves looking at things like business process outsourcing. Having part of your process executed in a different environment might be a pure cost improvement, but it might also be an actual process improvement. If you’re working with a paper-based workflow or a highly verbal workflow, it’s hard to do that. But as you start to automate your processes, it becomes much easier to look at ways to improve those processes by making them independent of the geography in which they’re executed. For example, you can have certain transactions that get processed in another country or by another company. You can have things that happen within your company, but in different countries using a “follow-the-sun” model. You can also look at outsourcing parts of your process – areas that are not your key business focus. For example, you could outsource the whole credit check process to companies that specialize in that sort of thing, so you’re not spending time doing something that isn’t a competitive differentiator for you.

DISINTERMEDIATION
The third type of process improvement that provides a big advantage is disintermediation – getting rid of the middleman. We’ve seen this for years with bank machines. For the most part, you don’t go into your bank and talk to a teller anymore. You get your money from a bank machine. The teller has been disintermediated. The teller is no longer required in that operation. The same is true for airline and hotel reservations. You can book online without talking to a booking agent. This is based on the concept of having customers serve themselves or having business partners access the information in your systems without them having to call you. It doesn’t mean that’s the only channel through which you offer that information, it just means you put that forward as an option. If your trading partners or your customers prefer that sort of interaction, they can take advantage of it and it will make your processes more efficient for them and for you.

These are just some of the places you can look for process improvement that you might not be thinking about if you just do a straight walkthrough of your existing business process. It helps you think outside the box a little bit.
5. Think Process

When you start on any process improvement project, and you’re still at the early discovery phase, you need to get people in your organization thinking in a process-centric way. The key thing here is to get people out of their functional silos and thinking about the end-to-end business process. For example, where does the process touch the customer? Where does the process interact with your business partners? These are key things to think about even if it’s not your particular job to do that interaction. You want to think about how your piece of the process can impact those touchpoints with people outside the organization.

What are your key performance indicators, overall, for your process? Instead of thinking about departmental goals, think about corporate goals and what steps in the overall end-to-end process contribute to those KPIs. By considering the end-to-end business process, you’re really looking at optimizing the process as a whole instead of doing local optimization within departments. Any of you that study statistics or mathematics know that local optimization isn’t always the best thing overall. You want to look at how you can globally optimize your processes and be doing that optimization from the standpoint of your customers. That’s what I mean by “think process.” Don’t let people get stuck in their little functional silos. They need to care about what goes on in other parts of the company, beyond their own job and their own department, to have a global end-to-end process view.

6. Process Prototyping

The last thing I want to touch on is process prototyping, what it looks like when you start bringing people together to sketch out what your future state processes or your to-be processes should be. There are a couple of key things here. One is getting the appropriate tools and the second thing is involving the right people.

Two of the most common tools are Visio and PowerPoint. Putting PowerPoint aside, which has obvious limitations for process mapping, let’s assume you’re doing your process modeling with Visio. Visio is a general diagramming tool and although it’s great for what it does, it’s not really optimized for process modeling. There are a number of things that aren’t in Visio that you really need for process modeling. For example, your modeling tool should be supporting best practices around modeling and enforcing standards like the Business Process Modeling Notation (BPMN), where shapes mean certain things consistently within the
process. These are important things that a proper process modeling tool will enforce that aren’t enforced in a more generalized environment like Visio or PowerPoint. You’d like to have some enforcement of standards and some enforcement of best practices. You also want some early analysis tools, because if you’re starting to sketch out some of your processes, this is going to lead directly into modeling, and at some point you’re going to want to simulate those processes and see whether you’re going to get the benefit from them that you’re expecting to get. So, there are a number of functions you’d like to have in a high level process sketching tool or modeling tool that don’t necessarily exist in some of the more generalized diagramming tools you might have access to.

You don’t have to go out and buy an expensive tool. There are a few BPM companies, including TIBCO of course, that provide a free downloadable tool for doing your process modeling. There are also software and service offerings that offer an inexpensive way to do it. In both cases, you’re not looking at making a big capital outlay to have a very capable process modeling tool. You don’t have to go out and spend a huge amount of money to get something that’s optimized for modeling your business processes. These are also very easy to use tools. This is key when we talk about involving the right people in designing processes. They’re not really any harder to use than Visio. You’re just drawing boxes in a flowchart sort of environment. It’s going to be pretty easy for people to get used to a tool like this.

The next thing is getting people involved. You have a tool, something that will allow you to do some high level process sketching. You don’t necessarily want to go into every detail. This isn’t your final process map; you just want to lay out a few things and allow people to put in some ideas as to what the current state process is and what the future state should be. But it’s key to involve all of the right people and I’m a firm believer that it needs to be driven by the business side. This is not something where you can have IT come in, plop down a tool, and say, this is what you’re going to be using to do your process modeling or we’ll do your process models for you because it’s too complicated for you to learn how to use.

I really believe that this is something where the business needs to be fully involved in selecting these tools and in doing this high level process sketching, as well as some of the follow-on stages of process modeling. There should be some pretty key involvement from the business side. There are a couple of reasons for that. First is that the business people know the business processes – that’s why the word business is in BPM. We really want to have the people who understand
the processes, who are feeling the pain points, we want them to be the ones that are modeling the processes, both in an as-is and a to-be state. The second thing is that the more people that get involved, especially on the business side, the greater buy-in you’re going to get. You’re going to find that if people are involved in some high level process sketching and if they’re able to make a contribution and do some collaboration on what the processes should be, when these changes do finally happen, they’re going to be bought into it. They’ve got a little bit of skin in the game. So, they’ll be able to say, “Yeah, I helped design that process and I agree that that’s the best way to do it.” Or “I understand why it has to be maybe not exactly what I wanted, but I understand the concerns of other people.” So, the more people you get involved, in terms of some of this early process sketching and process discovery, the better results you’re going to have.

For any of you that are using social networking tools within your organization, especially things like wikis, this is what you refer to as crowd sourcing or the wisdom of the masses. You’re trying to get information from anybody who might have something to contribute. It doesn’t mean you’re going to force people to participate if they don’t feel they have anything to contribute. But anybody who has a valid opinion and who can bring something to the table, let them contribute to the process prototyping. It’s really about getting the buy-in, involving the right people, getting the business people involved. At some point, you’re going to have to have IT involved too, but not at this early prototyping stage. This is where you’re laying out what your processes should be. It is a very high level process sketch. You don’t really need to have IT involved at this point if you have the appropriate tools that you can use on your own. From the business side, you can do this directly. If IT wants to get involved early, that would be great. If you’re on the IT side and you want to help with getting this process kicked off, that help is going to be more than welcome. But you really have to leave the business processes themselves in the hands of the business users, because they’re the ones who understand what these processes are.
7. About TIBCO

TIBCO Software Inc. (NASDAQ: TIBX) is a provider of infrastructure software for companies to use on-premise or as part of cloud computing environments. Whether it’s optimizing claims, processing trades, cross-selling products based on real-time customer behavior, or averting a crisis before it happens, TIBCO provides companies the two-second advantage™ – the ability to capture the right information at the right time and act on it preemptively for a competitive advantage. More than 4,000 customers worldwide rely on TIBCO to manage information, decisions, processes and applications in real time. Learn more at www.tibco.com