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Working at Different Levels

Too many discussions of process overlook the fact that the process perspective is hierarchical in nature. All processes are a part of a higher process and all processes contain smaller processes.

One doesn't have to talk to a process practitioner for very long to determine the level at which he or she thinks and works. Different levels suggest different goals, different tools, and different techniques. And, people working at different levels tend to define their key terms in slightly different ways.

Figure 1 resulted from a discussion I had with a developer who worked for a BPMS tool vendor. He was demonstrating an application that was developed in his BPMS tool. The specific application allowed users to create and maintain a list of approved part vendors that they could contact when they needed to acquire parts. The actual application is located in the box at the bottom of Figure 1. What I did was imagine the successively larger processes that that process was involved in, until I arrived at the value chain. [1]

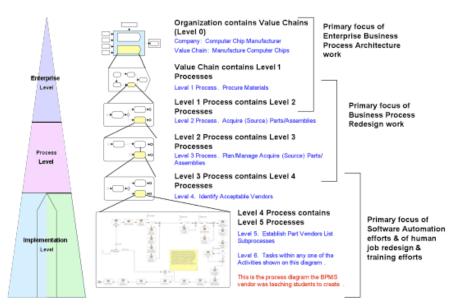


Figure 1. The Decomposition of a Hierarchy of Processes.

In Figure 1, we follow the convention used by the Supply Chain Council. We term a value chain process, Level 0. The major subprocesses within the value chain are termed Level 1 processes. [2] The subprocesses of Level 1 processes are Level 2 processes and so forth. At the top level we show an organization and two value chains as subprocesses. At the next level down we show a value chain which contains five subprocesses—which we term Level 1 processes and below that we show the subprocesses down to Levels 4-5. I originally created Figure 1 to illustrate the differences between the process work done at the various levels from Level 0 down to Level 5.

The BPMS vendor I was talking with was focused on a Level 4 process that included a set of Level 5 subprocesses, activities or tasks involved in identifying part vendors. This is precisely the level of detail needed to define and automate the Level 4 process: *Maintain Approved Part Vendor List*. It requires all of the detailed notation available in BPMN to define exactly how a computer will handle the process activities. But the level of detail is so specific as to be completely beyond the interest of the managers and redesign people focused on Level 0–Level 3 processes. In the case of the Level 4 process model one is specifying steps that a machine can execute. In the case of a Level 2 process model, one is specifying activities that a business manager can understand.

Let's see if we can tease out some of the differences that occur at the different levels. To keep it simple, let's group the levels and create three broad categories: Organization/Architecture Level Models (Levels 0-2), Major Business Process Redesign Level Models (Levels 1-3), and Smaller Process Improvement Models (Level 3-5).

Organization/Architecture Level Models (Level 0-2)

At this level, one is often more concerned with identifying all the major processes in the organization and sorting out relationships between them. This is the level at which we focus on







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value chains, value streams, and relationships between processes and stakeholders. Indeed, at this level we are often shifting back and forth between processes inside the organization and customers and external stakeholders outside the organization. (Some like to refer to this focus as Outside-In.) One can do BPMN diagrams at this level, but one isn't likely to go beyond a core BPMN notation. It's more common to use informal diagrams. IGOE or Scope Diagrams are much more powerful at this level. [3] One is more concerned with defining how many value chains an organization has, how specific value chains or Level 1 processes are measured and related to organizational goals, and defining how core, management and support processes interact. At this level, one is also concerned with who actually manages the value chains and Level 1 processes and how the organization is set up to monitor and reward process improvement.

One models the organization and its major processes to understand the organization, to develop a good process measurement and management system, and to identify and prioritize more specific processes for redesign and improvement. In methodological terms, this is generally understood as the BPM/Process Governance System.

Major Process Redesign Level Models (Level 1-3)

A Level 1 or Level 2 process is typically something like: *Develop New Products, or Sell Products, or Deliver Customer Service*. These are big processes typically comprised of hundreds of activities and, in a large organization, they are processes involving the work of hundreds to thousands of employees. Normally, these processes instantiate business models and depend on major technologies. Changing these processes involves major transformations in the organization. Redesign often occurs when the organization decides to outsource, or adopt a new technology, or when a merger occurs. Making changes in these types of process is what Hammer referred to as business process reengineering—making changes that dramatically alter the way the organization does business. In the best case, this kind of process redesign changes an entire industry and gives a player a major competitive advantage. An easy example of this is the way Amazon's approach to book retailing changed the entire publishing industry.

Modeling at this level involves techniques like those used by Lean practitioners when they do value stream modeling. It is also a great place to use Scope Diagrams [2], and stakeholder diagrams.

Obviously, one always has to worry about details and implementation, but initially, thinking outside the box and innovation are more important here than analyzing what the organization is currently doing, or imagining incremental changes. Methodologically this is the domain of Business Process Reengineering, Organization Transformation, Innovation, and Major Process Redesign efforts.

Smaller Process Improvement Models (Level 2-5)

Smaller Projects tend to focus on trying to improve existing processes. In this case, one isn't interested in a revolution, but in significant improvements in efficiency and effectiveness. These projects can be undertaken by employee teams or by outside project teams. If done by employee teams they are usually referred to as incremental or continuous improvement projects. In some cases, the process involved can be large, but the focus on change is confined to a small part of the process or on a limited set of activities. And, to reiterate, the goal here isn't to reconsider the entire process, but to make specific changes that will improve the efficiency or effectiveness (quality, consistency) of the process.

This is certainly the place where BPMN and other detailed flow notations are most useful, although it is also the area where Six Sigma's SIPOC models are commonly used. This is the level at which we can gather the kinds of specific measures that the Six Sigma people are most interested in monitoring and measuring.

Figure 2 suggests some of the techniques one might use at this level. In essence, most of the techniques we associate with technologies like Lean, Six Sigma, Decision Management, IT and Human Performance Technology are used at this level. They provide ways of incrementally improving specific activities or relatively small processes.

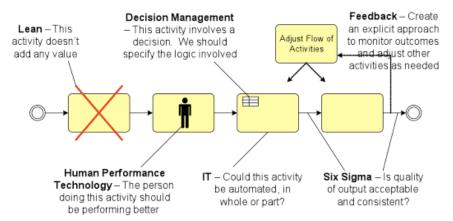


Figure 2. A Variety of Techniques Used for Improving Existing Processes.

Generalizations and Exceptions

Before those who identify with one methodology or another object to my generalizations, let me add an important qualification. There are hundreds of books written about process approaches. There are practitioners working in each methodology who focus on the core practices of the approach and there are others who focus on expanding the limits of a given approach. Thus, some Lean, Six Sigma and HRP practitioners work at all of the levels I have described. Similarly, IT people seek to automate processes at all levels. The best practitioners of each methodology are bright, flexible people who are concerned with the whole range of process problems. That said, however, most IT people work on automating relatively specific processes, while most business process architects work at developing high level descriptions of the processes that make up an organization. I am not saying that any one of the methodologies or techniques I have mentioned is, or should only be, used at one of the three levels I have described. I am saying that, as a general rule, some methods and techniques are more commonly used at one level rather than another.

My real point, however, is that we should be careful when we start talking about process work and realize that we are necessarily talking about problems that are limited in scope and application. Some practitioners tend to speak of broad problems involving the analysis of how processes fit together at the organizational level. Others talk about how more specific and detailed processes can be improved. Some who argue for one or another technique, notation or methodology, seem to assume their favorite approach is the only one needed.

We may all be involved in process work, but we are often involved in solving different types of problems and different problems require different tools, techniques and methodologies. Different problems are best approached with different sets of assumptions. Most of the arguments about definitions and techniques can be avoided if everyone begins by being clear about the size and the scope of whatever process they are focused on.

Till next time, Paul Harmon

Notes:

- [1] Note that the actual process that the BPMS vendor was focused on—*Establish Part Vendors List*—is a managerial process and not a core process. Some manager or specialist establishes and maintains the approved vendor list. The employees working on core processes access the list when they need to find a part vendor.
- [2] As a strong generalization, Level 1 processes tend to be value streams and the activities that constitute the steps in a value stream are usually the Level 2 processes that make up a given value stream. Figure 3 illustrates this by picturing three value streams without detailing the specific subprocesses that would normally make up the value stream loop.

Figure 3. Three value streams, each initiated by a customer.

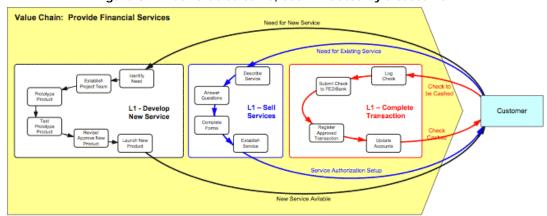


Figure 4. Three value Streams, each consisting of level 1 and 2 processes.

[3] See my Advisor on Scope Diagrams: Go to www.bptrends.com and search on Scope Diagram for the Advisor that appeared on October 9, 2012.

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