Harvard
Business
Review

Process Management

The Process Audit

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From the Magazine (April 2007)

Summary. Reprint: R0704H Few executives question the idea that by redesigning business processes—work that runs from end to end across an enterprise—they can achieve extraordinary improvements in cost, quality, speed, profitability, and other key areas. Yet in spite of... **more**

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Business has embraced process management as a way of life. New and controversial when I first described the concept 17 years ago in the pages of this magazine (see "Reengineering Work: Don't Automate, Obliterate," HBR July–August 1990), the process-based approach to transformation is now used routinely by enterprises all over the world. Few executives question the idea that redesigning business processes—work that runs from end to end across an enterprise—can lead to dramatic enhancements in performance, enabling organizations to deliver greater value to customers in ways that also generate higher profits for shareholders. In virtually every industry, companies of all sizes have achieved extraordinary improvements in cost, quality, speed, profitability, and other key areas by focusing on, measuring, and redesigning their customer-facing and internal processes.

Sadly, however, casualties litter the road. Since 2000, I have personally observed hundreds of companies try to rejuvenate themselves by creating or redesigning business processes. In spite of their intentions and investments, many have made slow or little progress. Even businesses that succeeded in transforming themselves have found the endeavor arduous and harrowing. All change projects are tough to pull off, but process-based change is particularly difficult. Contrary to widespread assumptions, designing new business processes involves more than rearranging work flows—who does what tasks, in what locations, and in what sequence. To make new processes work, companies must redefine jobs more broadly, increase training to support those jobs and enable decision making by frontline personnel, and redirect reward systems to focus on processes as well as outcomes. As if that weren't enough, enterprises also have to reshape organizational cultures to emphasize teamwork, personal accountability, and the customer's importance; redefine roles and responsibilities so that managers oversee processes instead of activities and develop people rather than supervise them; and realign information systems so they help cross-functional processes work smoothly rather than simply support departments.

In most of the companies I studied, executives were floundering. They realized that they needed to change many things to harness the power of processes, but they were unsure about what exactly needed to be changed, by how much, and when. Their uncertainty was manifest in hesitant decisions and confused planning, in endless debates and unproductive discussions, in unwarranted complacency and equally unwarranted despair, in errors and rework, in delays and abandoned efforts. People kept asking one another questions such as, Did we start with the right thing? How do we know we are making progress? What will the organization look like when we finish? Moreover, executives, especially when they work in different functions, often disagree about the factors that aid process-based transformations. Each has a pet idea based on his or her expertise. Like the six blind men and the elephant, one focuses on technology, another on human resource issues, a third on organizational structure, and so on,

creating confusion and conflict. Managers also have a tendency to swing from wild optimism that developing new processes will be painless to unremitting gloom that the task is hopeless. Without knowing what they must concentrate on and when, executives have been unable to master the science of transforming business processes.

Five years ago, I started a research project in conjunction with the Phoenix Consortium—a group of leading companies with which I work closely—to develop a process implementation road map. My aim was to create a framework that would help executives comprehend, plan, and assess process-based transformation efforts. Over time, I identified two distinct groups of characteristics that are needed for business processes to perform well and to sustain that performance (see the exhibit "The Process and Enterprise Maturity Model"). One set of features applies to individual processes. These *process enablers* determine how well a process is able to function over time. They encompass the comprehensiveness of a process's design, the abilities of the people who operate the process, the appointment of a top-level process owner to oversee the process's implementation and performance, the match between the organization's information and management systems and the process's needs, and the quality of the metrics that the company uses to measure process performance. My research shows that not all organizations are equally prepared to put these enablers in place. Companies that are able to do so possess important *enterprisewide capabilities:* Their senior executives support a focus on processes; their employees greatly value customers, teamwork, and personal accountability; they employ people who know how to redesign processes; and they are well organized to tackle complex projects.

The Process and Enterprise Maturity Model

Companies need to ensure that their business processes become more mature—in other words, that they are capable of ...

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Together, the enablers and capabilities provide an effective way for companies to plan and evaluate process-based transformations. I presented the model's first version to the Phoenix Consortium's members in 2004, and they tested and revised it extensively. In 2006, I finalized the framework, which I call the Process and Enterprise Maturity Model (PEMM). In the following pages, I discuss the five process enablers and four enterprise capabilities in detail. I also show how companies that use PEMM can take the task of process transformation out of the arena of intuition and mystery and subject it to measurement, evaluation, improvement, and replication.

Can Your Processes Deliver High Performance?

My two decades of experience with business processes have taught me that form influences function—that is, process design determines performance. By design, I mean the specification of which people must perform what tasks, in what order, in what location, under what circumstances, with what information, and to what degree of precision. Certainly, companies can use techniques such as Six Sigma and TQM to ensure that employees execute processes correctly. However, redesigning processes is often the only way to improve their performance dramatically. Doing so eliminates many of the nonvalue-adding activities that are the source of costs, errors, and delays and helps companies come up with process innovations (see my article "Deep Change: How Operational Innovation Can Transform Your Company," HBR April 2004).

Although process redesign is no longer the terra incognita it once was, one issue stubbornly persists: Most companies tend to overlay new processes on already established functional organizations. However, the appurtenances of a traditional organization—such as job definitions, performance measurement systems, and managerial hierarchies—don't always support high-performance processes. For instance, senior executives might encourage managers to create a cross-functional process but then prevent them from altering the company's performance measurement system appropriately. That's shortsighted. The revamped business process needs employees to focus on a broad, common outcome; if the organization measures performance as it has always done, it will reward people for focusing on narrow, functional goals. How can the process live up to its potential under those circumstances? Companies will invest in retraining employees to work in a new process, but they balk at footing the bill for helping people understand how the process works as a whole. If employees don't know the context in which they work, they will be prone to making decisions that aren't in the best interests of the entire process. Similarly, leaders will try to create processes without altering managerial responsibilities. That's problematic, too. A high-performance process extends across functional boundaries, so a senior executive must supervise it. Without such a person, the process won't gain traction within the organization.

> **How can a process live up to its potential if an organization measures performance as it has always done and rewards people for focusing on narrow, functional goals?**

While studying organizations that were implementing new processes, I kept track of their errors of omission. I also analyzed the various factors that were necessary to sustain business processes. I tested both lists over several years and winnowed

them down to the five characteristics that I find are essential for any process to perform well. A process must have a well-specified *design;* otherwise, the people performing it won't know what to do or when. The people who execute the process, the *performers,* must have appropriate skills and knowledge; otherwise, they won't be able to implement the design. There has to be an *owner,* a senior executive who has the responsibility and authority to ensure that the process delivers results; otherwise, it will fall between the cracks. The company must align its *infrastructure,* such as information technologies and HR systems, to support the process; otherwise, they will impede its performance. Finally, the company must develop and use the right *metrics* to assess the performance of the process over time; otherwise, it won't deliver the right results. These enablers give a process the potential to deliver high performance.

The enablers are mutually interdependent: If any are missing, the others will prove to be ineffective. A weak owner can't implement a strong process design, poorly trained performers can't carry out the design, a bad design cannot optimize the process metrics no matter how well thought-out they are, and so on. A process that is missing an enabler might deliver results in the short term through superhuman performance or executive intervention, but those results won't last. Of course, having all the enablers in place doesn't guarantee that a process will perform well; for instance, the mere existence of a process design doesn't mean it's a good one.

I have witnessed repeatedly how missing enablers can derail processes. At a well-known electronics giant, for example, a team designed a new order-fulfillment process and conducted a successful pilot. However, the process owner didn't have the authority to force unit heads to implement it, so the effort floundered. In another instance, a major consumer goods manufacturer created a new process and trained its workers to perform new jobs. However, it didn't educate them about the overall process. As a result, some employees made decisions that inadvertently created problems for colleagues, which hurt performance and morale and forced the company to abandon the

effort. In yet another case, a pharmaceutical manufacturer transformed its sales and marketing processes but didn't make the effort to realign its metrics and reward systems. That sent conflicting signals through the organization, elicited inconsistent behavior from employees, and eventually derailed the project.

What makes overhauling processes particularly tricky is the fact that these enablers are present in organizations at different levels of intensity, so they vary in the degree to which they support a process. For instance, the question is seldom as clear-cut as whether or not organizations appoint process owners; many companies, after doing so, don't give the process owners the authority to implement all the changes that are necessary to make processes work. I've identified and defined four levels of process enabler strength (P-1, P-2, P-3, and P-4), each of which builds on the preceding level, as shown in the exhibit "Assessing the Maturity of Your Processes." In the case of performers, for instance, the P-1 level denotes that employees are merely aware of the process and its metrics. At the P-2 stage, people must be able to describe the process and where they fit into it. At the P-3 level, employees can express how their work affects the company's performance. Finally, at the P-4 stage, performers must know how their work affects customers and suppliers. The stronger the enablers, the better the results the process can deliver on a sustained basis.

Assessing the Maturity of Your Processes (with downloadable PDF worksheet)

Assessing the Maturity of Your **Processes**

You can evaluate the maturity of a business process and determine how to improve its performance by using this table. Decide how the statements defining the strength levels, from P-1 to P-4, for each enabler apply to the process that you are assessing. If a statement is largely true (at least 80% correct), color the cell green; if it is somewhat true (between 20% and 80% correct), shade the cell yellow; and if it is largely untrue (less than 20% correct), make the cell red. For companies trying to advance to the next level of performance, the green cells indicate the enablers

		P-1	P-2	
Design	Purpose	The process has not been designed on an end-to-end basis. Functional managers use the legacy design primarily as a context for functional performance improvement.	The process has been redesigned from end to end in order to optimize its performance.	
	Context	The process's inputs, outputs, suppliers, and customers have been identified.	The needs of the process's customers are known and agreed upon.	
	Documentation	The documentation of the process is primarily functional, but it identifies the interconnections among the organizations involved in executing the process.	There is end-to-end documentation of the process design.	
Performers	Knowledge	Performers can name the process they execute and identify the key metrics of its performance.	Performers can describe the process's overall flow; how their work affects customers, other employees in the process, and the process's performance; and the required and actual performance levels.	
	Skills	Performers are skilled in problem solving and process improvement techniques.	Performers are skilled in teamwork and self-management.	
	Behavior	Performers have some allegiance to the process, but owe primary allegiance to their function.	Performers try to follow the process design, perform it correctly, and work in ways that will enable other people who execute the process to do their work effectively.	
Owner	Identity	The process owner is an individual or a group informally charged with improving the process's performance.	Enterprise leadership has created an official process owner role and has filled the position with a senior manager who has clout and credibility.	
	Activities	The process owner identifies and documents the process, communicates it to all the performers, and sponsors small-scale change projects.	The process owner articulates the process's performance goals and a vision of its future; sponsors redesign and improvement efforts; plans their implementation; and ensures compliance with the process design.	
	Authority	The process owner lobbies for the process but can only encourage functional managers to make changes.	The process owner can convene a process redesign team and implement the new design and has some control over the technology budget for the process.	
Infrastructure	Information Systems	Fragmented legacy IT systems support the process.	An IT system constructed from functional components supports the process.	
	Human Resource Systems	Functional managers reward the attainment of functional excellence and the resolution of functional problems in a process context.	The process's design drives role definitions, job descriptions, and competency profiles. Job training is based on process documentation.	
Metrics	Definition	The process has some basic cost and quality metrics.	The process has end-to-end process metrics derived from customer requirements.	
	Uses	Managers use the process's metrics to track its performance, identify root causes of faulty performance, and drive functional improvements.	Managers use the process's metrics to compare its performance to benchmarks, best-in-class performance, and customer needs and to set performance targets.	

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The enablers’ strengths determine how mature a process is—that is, how capable it is of delivering higher performance over time. If all five enablers of a process are at the P-1 level, the process itself is at the P-1 level; if all five enablers are at the P-2 level, the process is at P-2; and so on. If only four out of the five enablers rise to a particular level, however, the process cannot be said to

have achieved that level; it will belong to the one below. In particular, if any enabler is so weak that it doesn't meet even the P-1 level, the process is by default at P-0. That's the natural state of affairs when organizations haven't focused on developing their business processes, and at this P-0 level, processes work erratically. At the P-1 level, a process is reliable and predictable; it is stable. At P-2, a process delivers superior results because the company has designed and implemented it from one end of the organization to the other. At the next level, P-3, a process delivers optimal performance because executives can integrate it, where necessary, with other internal processes to maximize its contribution to the company's performance. Finally, at P-4, a process is best in class, transcending the company's boundaries and extending back to suppliers and forward to customers.

The exhibit displays the four levels of process maturity, with the rows showing the enablers and the columns indicating the strength levels. (There are 13 rows because I broke the five enablers down into more finely grained components.) Companies using this table to evaluate the maturity of their processes find it effective to treat the propositions regarding the enablers (the cells of the table) not as true or false statements, but as largely true, somewhat true, or largely untrue. Where quantitative assessments are possible, largely true means that the statement is at least 80% correct, somewhat true suggests that the statement is between 20% and 80% correct, and largely untrue means the statement is less than 20% correct. Executives often color the cells green, yellow, or red, respectively, depending on their responses. The green cells indicate the things that aren't impeding a process's progress and don't need a great deal of focus; the yellow cells show areas where the company has considerable work to do; and the red cells represent roadblocks that keep the process from achieving a higher level of performance. Companies usually face red cells when they are ignoring problems or handling them the wrong way, and so, they must tackle them urgently.

Let me show you how useful it can be for managers to know the state of a company's process enablers. In 2004, Michelin launched a process redesign effort to help increase customer focus and

reduce costs. At the time, the global tire manufacturer's order fulfillment process forced customers to deal with multiple departments and to go back and forth repeatedly with the company. To tackle the problem, Michelin created a new high-performance process, which it named Demand to Cash (D2C). A year later, a streamlined process design—which provided large customers with single points of contact, with personnel who knew them, and with accurate information—was ready. During pilots, executives found that in some cases, the new process slashed the order fulfillment time from four hours to 20 minutes.

Michelin decided to deploy the new process in 30% of its North American operations by 2006 before rolling it out across the entire region. The company's process redesign team had learned from my research that before it could implement a new process that would deliver superior performance—that is, a P-2 process—all its enablers had to be at the P-2 level. When the team, led by the process owner, undertook an assessment to confirm that was the case, it found that the human resource systems that supported the new process were below P-2. Michelin hadn't redefined managers' jobs and the scope of their activities clearly enough. Before rolling out the new process, the company kicked off a series of workshops to clarify managers' new roles and departmental charters and to align them better with the D2C process.

Michelin's enabler analysis also suggested that the D2C process might run into trouble because performance-improvement projects had proliferated in the company. Senior executives therefore placed the process owner in charge of all the projects that affected the D2C process to ensure that they wouldn't interfere with its execution or companywide rollout.

Is Your Enterprise Ready for High-Performance Processes?

In order to develop high-performance processes, companies need to offer supportive environments. They must possess or develop organizational capabilities in four areas: leadership, culture, expertise, and governance. First, a company's senior executives

must be committed to the business process approach. Redesigning processes requires extensive organizational change that often provokes resistance down the line. This can sink efforts that don't have the backing of senior executives. Second, only organizations whose cultures value customers, teamwork, personal accountability, and a willingness to change will find it possible to move forward with process-led change projects. Business processes, which cut across functions, must be operated by people with those values. Third, businesses must have some people with skills in, and knowledge of, process redesign; this is not work for amateurs or improvisers. And fourth, enterprises must be sure to have ways of governing projects and change initiatives if they don't want chaos and conflict to bog them down.

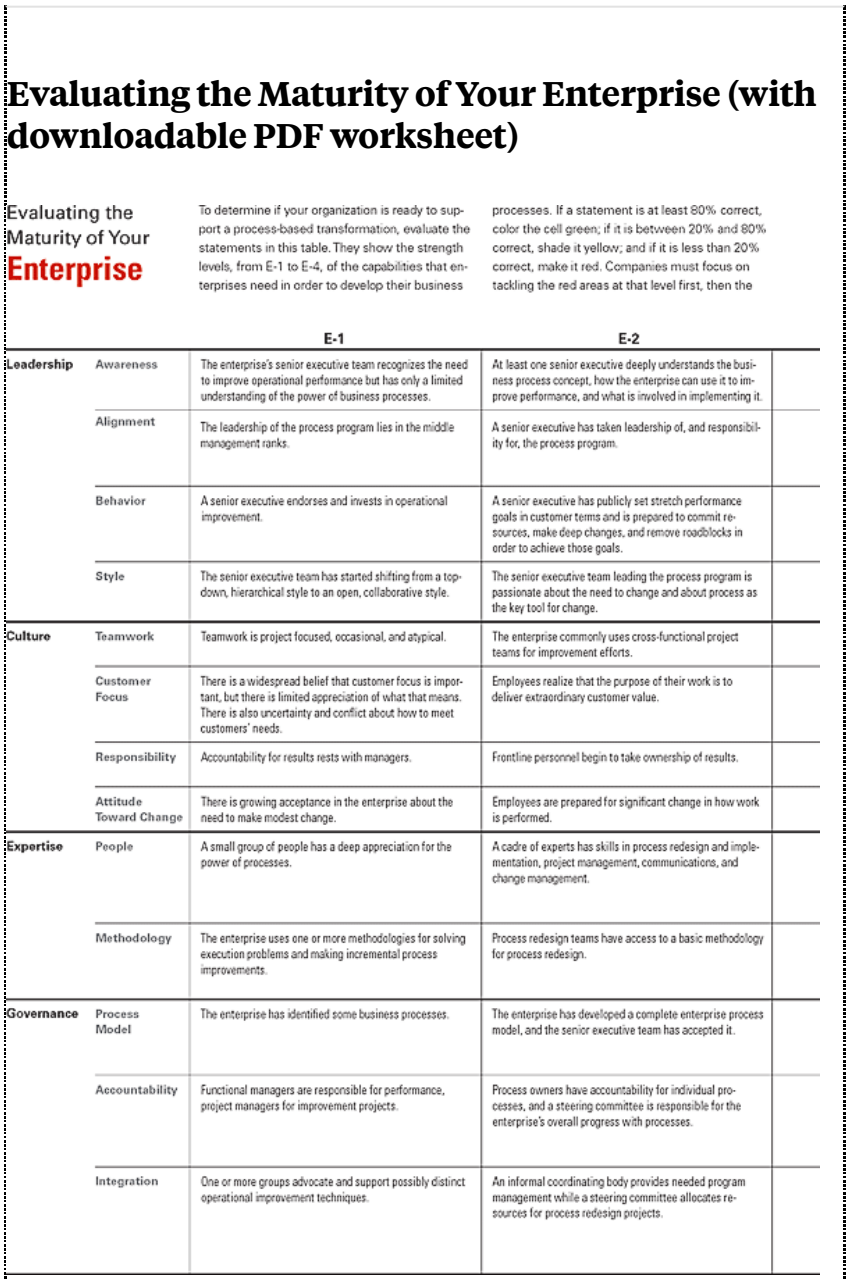
Unless all these capabilities are in place across a company, it will be impossible for the organization to institutionalize the enablers and sustain the performance of its processes. Executives may be able to force some enablers into place even if the capabilities aren't present, but the performance of their processes won't endure. Organizations need basic competence in all the enterprise capabilities to get started on process redesign projects; they need greater competence if they are to progress with them. Just as there were four levels of process enabler strength, there are four levels of enterprise capability: E-1, E-2, E-3, and E-4. If an enterprise has E-1 capabilities, it is at the first level of enterprise maturity. That means different things in the case of each capability. For instance, an organization at the E-1 level for culture must have some experience with teamwork. In order to get ahead, however, the enterprise must have an E-2 culture, in which it commonly uses cross-functional project teams and its people are familiar with teamwork. To achieve the E-3 level, teamwork must be the norm inside the company. To attain the highest capability level, E-4, teamwork with suppliers and customers must be routine.

Stronger organizational capabilities make for stronger enablers, which

allow for better process performance.

Stronger organizational capabilities make for stronger enablers, which allow for better process performance. Thus, when an enterprise has E-1 capabilities in leadership, culture, expertise, and governance, it is ready to advance all its processes to the P-1 level; when all four capabilities reach E-2, the company can move along its processes to P-2; and so on. The exhibit “Evaluating the Maturity of Your Enterprise” presents the four levels of enterprise maturity with the four capabilities broken into 13 elements. (The match with the number of elements in the process enablers table is pure coincidence.) Executives can assess enterprise maturity levels much the same way they can assess process enabler levels: by evaluating whether each proposition is largely true, somewhat true, or largely untrue of their organizations. They can then use colors to identify those aspects of the company that welcome processes (green), still need work (yellow), and are positively hostile to them (red).

Evaluating the Maturity of Your Enterprise (with downloadable PDF worksheet)



Evaluating the Maturity of Your **Enterprise**

To determine if your organization is ready to support a process-based transformation, evaluate the statements in this table. They show the strength levels, from E-1 to E-4, of the capabilities that enterprises need in order to develop their business processes. If a statement is at least 80% correct, color the cell green; if it is between 20% and 80% correct, shade it yellow; and if it is less than 20% correct, make it red. Companies must focus on tackling the red areas at that level first, then the

		E-1	E-2
Leadership	Awareness	The enterprise's senior executive team recognizes the need to improve operational performance but has only a limited understanding of the power of business processes.	At least one senior executive deeply understands the business process concept, how the enterprise can use it to improve performance, and what is involved in implementing it.
	Alignment	The leadership of the process program lies in the middle management ranks.	A senior executive has taken leadership of, and responsibility for, the process program.
	Behavior	A senior executive endorses and invests in operational improvement.	A senior executive has publicly set stretch performance goals in customer terms and is prepared to commit resources, make deep changes, and remove roadblocks in order to achieve those goals.
	Style	The senior executive team has started shifting from a top-down, hierarchical style to an open, collaborative style.	The senior executive team leading the process program is passionate about the need to change and about process as the key tool for change.
Culture	Teamwork	Teamwork is project focused, occasional, and atypical.	The enterprise commonly uses cross-functional project teams for improvement efforts.
	Customer Focus	There is a widespread belief that customer focus is important, but there is limited appreciation of what that means. There is also uncertainty and conflict about how to meet customers' needs.	Employees realize that the purpose of their work is to deliver extraordinary customer value.
	Responsibility	Accountability for results rests with managers.	Frontline personnel begin to take ownership of results.
	Attitude Toward Change	There is growing acceptance in the enterprise about the need to make modest change.	Employees are prepared for significant change in how work is performed.
Expertise	People	A small group of people has a deep appreciation for the power of processes.	A cadre of experts has skills in process redesign and implementation, project management, communications, and change management.
	Methodology	The enterprise uses one or more methodologies for solving execution problems and making incremental process improvements.	Process redesign teams have access to a basic methodology for process redesign.
Governance	Process Model	The enterprise has identified some business processes.	The enterprise has developed a complete enterprise process model, and the senior executive team has accepted it.
	Accountability	Functional managers are responsible for performance, project managers for improvement projects.	Process owners have accountability for individual processes, and a steering committee is responsible for the enterprise's overall progress with processes.
	Integration	One or more groups advocate and support possibly distinct operational improvement techniques.	An informal coordinating body provides needed program management while a steering committee allocates resources for process redesign projects.

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Many companies take their enterprise capabilities for granted. For instance, when CSAA (the AAA club for northern California, Utah, and Nevada) conducted an analysis to figure out why some of its processes were performing better than others, it found that the problem lay in its enterprise capabilities. A team led by Greg Tucker, CSAA's vice president of business transformation,

uncovered shortcomings in the organization's governance and expertise, particularly in process owner training, which prevented its processes from operating consistently at the P-2 level. The team also discovered that cross-functional teamwork wasn't strong in the company's culture, so processes that resided largely within a single division, such as claims processing, were doing better than those that cut across functions, such as customer billing and payment. These insights led the organization to kick off several efforts, including providing process owners with more responsibility, integrating process priorities into strategic planning exercises, and rolling out a new leadership model that emphasized process capabilities. These initiatives helped CSAA boost its enterprise capabilities and stabilize its processes' performance.

One unit's pioneering experiences can energize an entire organization.

In some cases, a company as a whole may be unprepared to embark on a process redesign program, but some of its divisions may be ready to do so. In such situations, executives must assess the strength of enterprise capabilities not at the corporate level but at the level of the business unit. Indeed, one unit's pioneering experiences can energize the entire organization, boosting its enterprise capabilities to a level at which work on redesigning processes can start all over the corporation. For instance, at Tetra Pak, the packaging equipment and materials giant, the task of redesigning processes began in 2001 at the company's Carton Ambient business unit, which makes equipment and materials that allow perishable products such as milk and juices to be stored at room temperature. The unit's capabilities were more mature than the company's, partly because of the passionate commitment of the unit's then head, Dennis Jönsson, to process-based transformation. When the unit redesigned its processes, its performance picked up; for instance, the accuracy of new products' delivery dates rose sharply, from 13% to 85%. The unit's

success emboldened Tetra Pak to develop new processes throughout the company—efforts that got a boost when Jönsson took over as Tetra Pak's CEO in 2006.

Using the Framework

Process enablers and enterprise capabilities create a comprehensive framework that allows companies to evaluate the maturity of their business processes and the receptiveness of their organizations to process-based change. The span of the model dispels the commonly held notion that proceeding with processes is easy. At the same time, the presence of several maturity levels signals that companies needn't plan to go from nowhere to perfection in one fell swoop. The stepwise structure indicates that there is a path to becoming a process enterprise, which allays people's anxieties and eliminates confusion.

> **There is a path to becoming a process enterprise.**

PEMM is different from other process maturity frameworks, such as Carnegie Mellon's Capability Maturity Model Integration (CMMI) framework, which applies to specific processes like software development and acquisition. The CMMI model identifies the best practices for specific processes and evaluates the maturity of an organization in terms of how many of those practices it has implemented. By contrast, PEMM applies to companies in any industry and doesn't specify what a particular process should look like. It identifies the characteristics that any process and every enterprise should have in order to design and deploy high-performance processes. A company can apply PEMM to all its processes, which allows the use of a standard approach across the organization, easy sharing of experiences, and quick comparisons of results. In addition, every organization can develop processes that meet its own needs since PEMM doesn't insist that the design contain specific features.

PEMM is also easy to administer. After a brief introduction, even personnel who are new to processes can create and interpret the two matrices. The model's simplicity allows people to apply it themselves rather than rely on experts or consultants; employees are more likely to believe in and act on such assessments. At the same time, the model's objective character—it uses testable propositions rather than opinions—helps factor out emotion and avoid needless arguments. Asking employees to evaluate a process or an enterprise is a subtle way of engaging them, and as they become more involved with processes, their commitment to change increases. Participating in PEMM assessments is educational without the formality and sensitivities usually associated with such activities. The structured nature of the model, its basis in company experiences, and its intuitive plausibility make senior executives as well as frontline personnel more comfortable with process-based change. Through PEMM, people learn about processes and process-centered organizations by doing rather than by listening.

Companies have used PEMM in many ways and at different stages of process-based transformation projects. When enterprises start redesigning business processes or seek to rise from one level to the next, it is imperative that they conduct a maturity analysis first. In 2001, Tom Purves, now Shell's vice president of manufacturing operations for the Americas Gulf Coast, took over as the manager of the Motiva refinery, a joint venture between Shell and Saudi Aramco, in Port Arthur, Texas. He and his leadership team used process-based techniques to redesign two core processes (Ensure Safe Production and Reliability-Centered Maintenance) and improve the refinery's operations. The results were impressive: In 2001, Port Arthur's unbudgeted production loss, the key metric of a refinery's performance, was 7.0%; in 2005, the loss fell to 2.4%—lower than the then best-in-class figure of 3.0%.

Purves was determined to improve the refinery's performance even more by increasing the strength of the process enablers from P-2 to P-3. His team used PEMM to identify areas that would need improvement. Process owners and senior executives evaluated

the process enablers and enterprise capabilities, and frontline personnel, independently, did the same. Unsurprisingly, the executives' visions were much rosier than the workers'. Instead of glossing over the differences, Purves made the two groups focus on the areas of disagreement. By avoiding the temptation of averaging and by harnessing the power of the conversation, the two groups came up with an accurate assessment. For instance, senior executives rated Port Arthur's expertise in designing processes higher than their subordinates did. That's because other employees didn't know how senior executives had evaluated process design methodologies or established standards for them. The senior team persuaded employees to accept its assessment of this area but acknowledged the need to improve communication about the issue.

Purves and his team found that several enablers were at the P-3 level, but the assessment showed weaknesses in performers' knowledge and the use of metrics for goal setting. PEMM identified some governance gaps as well. These insights led the team to launch efforts to increase the understanding of processes by performers, to use a more structured approach to setting performance targets, and to create a program management office. As a result, performance has continued to improve. For instance, Port Arthur's alarm rate, a key metric of the Ensure Safe Production process, is now the lowest in Shell's manufacturing system, and the mean time between failures of key equipment has shot up. These changes have contributed significantly to the refinery's bottom line.

On the basis of the Port Arthur experience, Shell is using PEMM to assess its refineries and chemical plants all over the world. Site leaders use the results, which the company has linked to strategic business reviews, to find out where their plants stand on critical issues and to identify the steps needed to develop both enterprise capabilities and process enablers. The ease of using the PEMM framework and the model's low overhead cost have made it feasible for Shell to conduct these evaluations every six months.

PEMM often helps companies tackle the difficult problem of sustaining high-performance processes. Clorox, for example, has been working on its Order to Cash (OTC) process since 2002, and by redesigning several of its subprocesses, the company had achieved impressive results: By 2006, late shipments fell by more than 70%, aged receivables declined by two-thirds, and the percentage of perfect orders skyrocketed from 19% to 70%. Yet, the leaders of the effort weren't sure that the process could sustain those results. Rick Magoun, a vice president of logistics at Clorox and the process owner of OTC, asked the owners of the four subprocesses to assess their maturity. He also asked the ten-person logistics leadership team to assess the enterprise capabilities of those parts of the organization involved in performing the OTC process. Each member conducted an evaluation and the group then discussed the results. They arrived at a consensus, not by splitting differences or going for averages but by debating each evaluation until some people—not necessarily those in the minority—reconsidered their appraisals. This proved to be a powerful way for the team to create a shared understanding of what the transformation entailed and to learn what more it needed to do.

The analysis provided several unexpected findings. First, it showed that the Order to Cash process wasn't as mature as many people believed it to be. This was surprising because the process had been the target of concerted redesign efforts, but it reinforced the idea that age is not the same as maturity. Second, Clorox's enterprise capabilities were more mature than were the enablers of the OTC process. The assessment indicated that executives needed to focus more attention on performer skills, knowledge, and behavior. What's more, the process designs didn't adequately reflect the customer's voice, so that needed work as well. Third, the OTC metrics were in better shape than the other enablers were, so the team could defer work in that area. In the same way, the team found some weaknesses in its enterprise capabilities, including a shortfall in process expertise and insufficient readiness for change. The Clorox team used all these findings to shape an action plan for the following year. Among other things, the team documented process revisions and used those

documents to prepare people for change. It also involved more people in redesign efforts, broadening the company's skills. Since the enterprise capabilities were at a higher level than the process enablers were, executives knew that the organization was ready to invest time and resources to address any outstanding issues.

The PEMM application provided Clorox with several additional benefits. For instance, the analysis took the guesswork out of planning; the process owner's team hadn't addressed certain issues simply because it hadn't thought of them. The framework allowed team members to decide where to focus their resources instead of forcing them to rely on intuition and flashes of inspiration. Moreover, the PEMM analysis gave Clorox's leaders answers they could offer the many employees who had become enthusiastic about the company's focus on business processes and were asking what they could be doing to help.

Finally, when high-performance processes break down, companies can use PEMM to find out what ails them. That's what Schneider National, one of the largest trucking companies in the United States, recently did. Five years ago, in order to counteract a slowdown in growth, the company identified five core processes. One of them, the Acquire New Business process, encompasses all the work Schneider performs from the moment a sales representative hears of a potential opportunity to winning a contract. A key metric of this process's performance is how long it takes to respond to a customer's request for proposal. Prior to the redesign, Schneider typically needed between 30 and 45 days to put in a bid. In 2003, the company created a new process that allowed it to get back to a customer in less than three days—an improvement of greater than 90%. As a result, Schneider's win rate, the percentage of sales opportunities that it converted into contracts, increased by 70%.

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In early 2005, however, the company started to experience problems. The redesigned process centered on "market owners," experienced leaders with responsibility for guiding pricing and other decisions regarding RFPs. In an effort to relieve pressure on market owners, some business units started involving more managers in these decisions. Other work-arounds cropped up, and soon, the process's performance began to deteriorate. When a Schneider team used PEMM, it determined that although the enablers of the process were at the P-2 and P-3 levels, the enterprise capabilities were lagging. Specifically, the team found gaps in governance and culture. The process owners and Schneider's process council, which served as a forum for process owners and business managers to resolve outstanding issues, weren't powerful enough to prevent line managers from tinkering with processes. The enterprise also hadn't embedded the commitment to solve problems in a structured fashion, rather than an ad hoc manner, deeply enough. Doug Mueller, then the vice president of business transformation and now the head of the Sole Source business unit, had raised those issues but had been unable to get much attention. The PEMM analysis pinpointed areas of weakness, helped get buy-in from the senior management team, and served as a catalyst for developing programs to upgrade Schneider's process governance system and focus its culture more squarely on business processes.• • •

The PEMM framework doesn't make the road to process transformation easy to traverse. Executives must do a lot of difficult, even painful, work to design high-performance processes and create an environment in which those processes flourish. In fact, organizations are often taken aback by the results of PEMM analyses; they feel they have made more progress than the model shows. However, in process transformations, as in life, knowing where you stand and having a road map to follow beats stumbling in the dark.

A version of this article appeared in the April 2007 issue of *Harvard Business Review*.

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