



Focused processes and IT: Lock in simplicity

Fixing overly complex processes and systems nearly always requires a big-picture approach

By Mark Gottfredson and Steve Berez

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Business processes and IT systems often don't function smoothly; costs mount, cycle time increases, computers freeze up and decisions slow down. To fix such problems, companies typically rely on process redesign tools, such as reengineering or Lean Six Sigma. They might revamp their enterprise resource planning (ERP) systems or other IT modules.

Solutions like these are powerful. They can sometimes streamline processes and systems and unlock value. But they often fail to deliver the desired benefits, because complexity just pops up somewhere else. A global energy company, for example, spent close to \$100 million on seemingly successful reengineering initiatives, yet general and administrative (G&A) costs continued to climb at a rate of 15% a year. One frustrated executive told us, "If you add up all the savings we're supposed to get from the reengineering, we should have negative G&A right now. Instead it keeps on going up." The same company had installed a new ERP system in hopes that it would deliver better value and save money. Yet IT costs were shooting through the roof.

Why do conventional solutions to process and IT issues regularly come up short? The reason is that processes and IT are rarely the main problem. Nearly always, process and IT troubles reflect complexity elsewhere in the company—in strategy, in business and product portfolios, and in the organization itself. The complexity may show up first in process breakdown or system proliferation, but its root causes often lie elsewhere. That's why the benefits of fixing processes or systems alone rarely live up to expectations. Functional units usually see themselves as service organizations, responsible for supporting the company's other functions and operations. They can streamline themselves, but they rarely question the demands of their *customers*.

Some companies have developed a different approach. Rather than try to fix processes solely through functional excellence or fix IT solely through systems modernization, they work the interfaces or *nodes* where business units and functions intersect. They address not just the process or system itself but also the root causes of complexity in the overall framework (see *Figures 1 and 2*). The payoff from this kind of cross-boundary approach is

substantial. Not only do the companies solve their immediate problem—they lock in simplification throughout the organization. They may begin with processes and systems, but they wind up with a more focused company.

The best way to understand the approach is to consider some examples, both in organizational processes and in IT systems.

Focused processes

At the energy company, as at many enterprises, the finance department spent a large fraction of its time generating reports. Staff members collected data, analyzed it, prepared the reports and then circulated them to operating managers. A conventional process-oriented solution might try to optimize this function. It would most likely reduce costs by 10% or 15%.

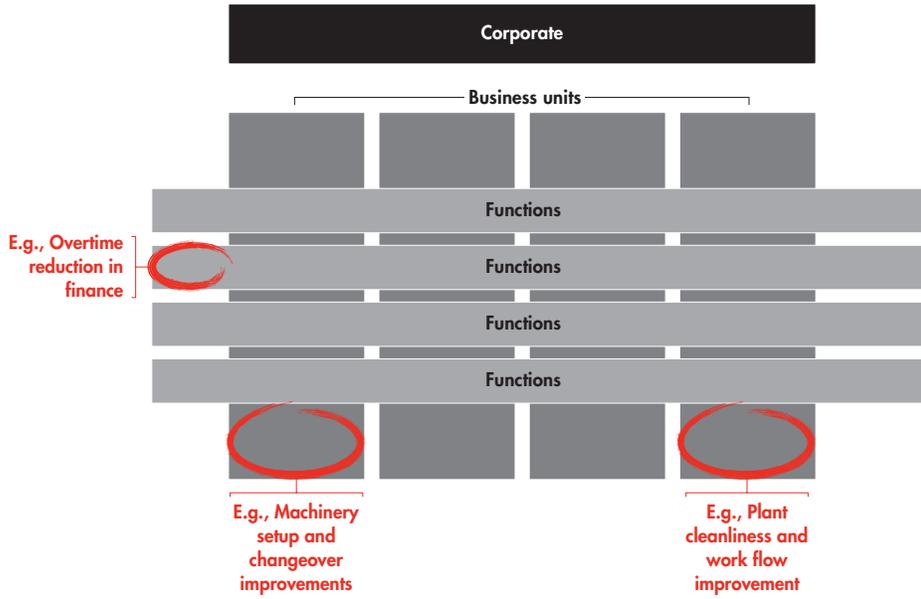
But this company had already seen too much process reengineering, so it took the approach we're describing in this article. Looking beyond the walls of the finance department, a team sought out the *customers* of all the reports—the operating managers. Team members reviewed every report with these managers, asking how the report was being used and what would happen if it was discontinued. "Many meetings were almost comical," one participant recalls. "People would say, 'Would you describe that report again? I don't think I've ever seen it.'" The team also examined whether the reports contributed to the company's current strategy and key metrics. Many had been developed years earlier and were no longer relevant to the handful of critical measures the newly focused company relied on. Thanks to this higher-level cross-functional review, the company was able to eliminate a full half of the finance department's managerial reporting and close to half of its costs.

That's a relatively simple example, but the approach works as well with more complex process issues. Consider the chemical company mentioned in the introductory article of this series at www.bain.com/FocusedCompany. The company was suffering from too much downtime, late deliveries to customers and low overall use of machinery. Each time it ran a new product through its equipment, it had to do a complete cleanout. The changeovers were

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Figure 1: Lean Six Sigma and other tools can optimize processes **within** a unit or function...

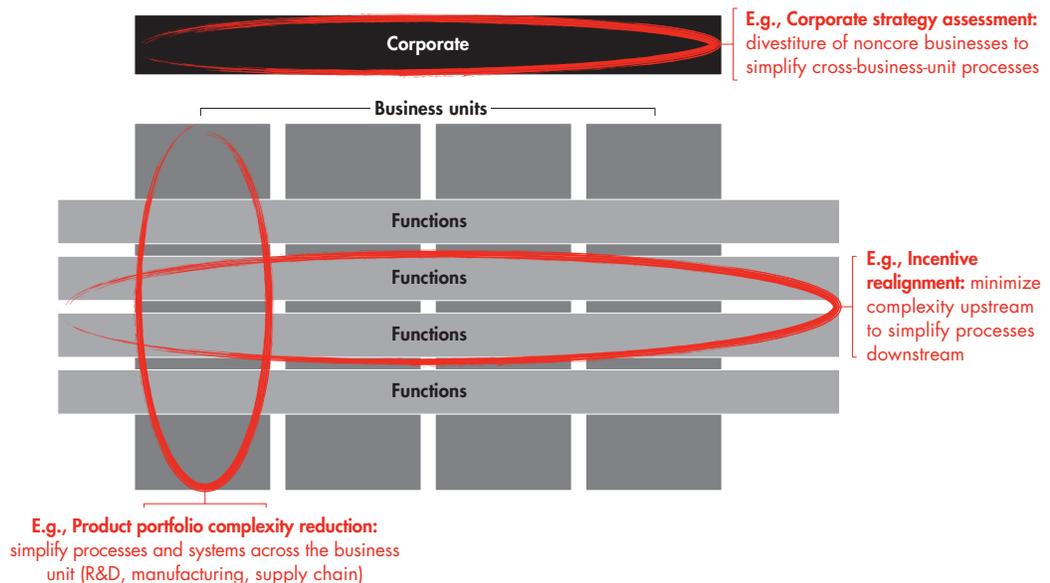
Examples of unit or function optimization



Source: Bain & Company

Figure 2: ...but there is more value in attacking complexity at the **nodes of interaction**, addressing root causes

Examples of complexity reduction at nodes of interaction



Source: Bain & Company

time-consuming and expensive, and overall equipment efficiency was about 33%.

At first, the company tried to improve cycle times through Lean Six Sigma techniques. It altered the scheduling, for example, and developed new methods for changeovers. These measures raised overall efficiency from 33% to about 40%. But then a team began asking the kinds of cross-functional, outside-the-four-walls-of-the-plant questions that the energy company had asked. Why is our product line so complex? Why do we have so many changeovers? The questions took the team on a voyage of discovery. Members learned that the marketing and product development functions had created unnecessary and unwanted product varieties. They learned that engineers were scheduling product runs without consolidating orders and without considering the trade-off between production efficiency and inventory costs. They discovered that operators in the plant were overruling the engineers' schedules because of machine breakdowns and material delays.

All these discoveries enabled the company to take a series of measures aimed at simplifying the entire system, well beyond the scope of the original issue. Soon the plant was running at 67% efficiency—an effective doubling of capacity, with little additional capital investment.

Focused IT systems

IT systems are notorious for their complexity. Often the reason is simple: As a legacy system ages, intrepid IT departments create updates, new modules, work-arounds, software fixes and other sorts of patches. In any given instance, the cost of a short-term repair or improvement is far lower than the cost of overhauling the entire system, so the complexity just gets worse. The only long-term solution is to redo the whole thing. (Moreover, IT departments can be victims of their own organizational complexity, including a lack of clarity in decision making and convoluted governance systems. We'll discuss those issues in other articles in this series.)

But like business processes, IT systems don't exist in isolation, and in many cases the source of complexity lies outside the walls of the IT department. Consider these examples:

- At the energy company, as we noted, IT expense was skyrocketing. The company's business units had been requesting all kinds of customized applications, each one adding costs and complexity. Were all those applications really necessary? When the company installed its new ERP system, it began allocating the system's costs to the business units—but those allocations weren't counted in determining a unit manager's financial performance. The managers, not surprisingly, regarded IT as essentially a free resource and didn't consider cost in their customization requests.
- Royal Caribbean, a leading global cruise line, made several acquisitions, which it maintained as separate brands. Unfortunately, the brands had three different shipboard IT systems, adding immeasurably to the complexity of operating the fleet. Royal could have saved money and improved its capabilities by consolidating the brands under one system. But where was the incentive to do so? Brand executives couldn't "see" the costs of the individual systems in their allocations from corporate. They had no reason to approve the pain and disruption of consolidating the systems. To fix the problem, Royal had to create transparent IT costing. It is now rolling out uniform advanced shipboard systems fleet-wide, with support from the brands.
- A few years ago EMC, a leader in data storage, information management and cloud computing, decided to replace its decade-old financial and manufacturing system. Originally based on an off-the-shelf package from Oracle, the system had grown to include 10 million lines of custom code, much of it driven by complexity in EMC's business policies. To keep customization below 10% in the new system, EMC simplified many of those policies. For example, it eliminated most of the 100-plus special codes related to crediting revenue from each order.

The importance of focused processes and IT

As you can see from the examples, processes and systems affect, and are affected by, a company's strategy, business units, product portfolio and organizational policies. Thus

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creating focused processes and IT systems is no small matter. What follows are some lessons companies have learned as they attack their process and IT issues.

Functional excellence produces some benefits, but most of the benefits come from solving issues at the nodes.

Typically, no one has been working to optimize the overall framework, so there are big opportunities for simplification. Look at the difference between the 10% to 15% savings the energy company might have achieved by streamlining its finance function and the 50% savings it attained by working the nodes.

Solving complexity at the nodes means seeing problems through a general manager's lens.

General managers have to understand how functions work together to accomplish the company's mission. Functional executives are unlikely to have the necessary perspective. The companies we cited had gone for years without looking at the big picture. That failure was costing them millions of dollars.

Clarity around decision rights, authority and accountability is critical to progress.

If people don't know who is responsible for the key decisions in a process—or, worse, if the wrong people are responsible—the process won't work smoothly. At the chemical company, engineers were making one set of decisions about scheduling, and plant operators were overruling those decisions, leading to scheduling chaos. The process could operate correctly only when the company identified the individuals with the best view of scheduling issues and gave them explicit decision rights.

Understanding incentives is key to understanding behavior.

It's difficult to break down silos—to cross functional nodes—when managers' incentives reflect only what goes on inside the silo, or when the incentives encourage them to take a parochial view. This was the problem with the IT systems at the energy company and Royal Caribbean: Managers had no reason to take a broader outlook. Incentives should encourage everyone to think of the enterprise's financial performance as well as that of their own unit.

When you modernize an IT system, you can use that opportunity to simplify processes and the sources of complexity that affect them. This will lock in simplicity rather than perpetuating complexity. When new processes are cemented into place through IT systems, the savings persist.

But don't let the cement dry too soon. Once installed, processes and IT systems create organizational inertia and are hard to change. Redesigning a process or replacing a system before simplifying strategies, product lines and other parts of a company's operation is exactly backward. It's like a real estate developer laying out the electrical grid for a new housing complex before deciding where the houses will go.

The right level of complexity is determined by customers.

Companies gain advantage by doing things that competitors can't do as well. If your customers value complex combinations of products and services—and if you can serve these customers profitably—then you will need some complexity in your processes and IT systems. IKEA's processes and systems, for example, require some complexity—how else could the company supply 338 stores in 40 countries with a constant stream of innovative products while lowering costs on existing ones? The point is to eliminate unnecessary complexity, and you will most often find that customers require much less variety than you are currently offering. Focusing on true customer needs will help you find the balance point where what you offer is exactly what customers value and will pay for.

Many of a company's most important processes and systems are those that cross business units and connect different functions and departments. Unnecessary complexity crops up most often in these processes and systems. If you look outside the silo walls, attack whatever is generating the complexity and then simplify the processes and systems, you will find yourself well on your way to creating a focused company. 

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