McKinsey on Business Technology

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Tackling the roots of underperformance in banks' IT

A lean approach can help IT executives bring stronger operational discipline to the intensely varied, specialized environments they oversee.

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IT executives in today's financial institutions face many business challenges. Banks require a diverse and skilled workforce to assure the stability of complicated legacy systems, to maintain and enhance the performance of dozens if not hundreds of customized applications, to support new product and channel innovation, and to meet the changing needs of users.

Meeting all these demands also requires a significant operating budget. On average, financial institutions spend a higher share of their revenues on IT—up to 9 percent—than other industries do.[1] Unfortunately, this investment's value often isn't fully realized, as a result of insufficient controls on incoming demand, poor resource coordination, and a lack of performance transparency. While in

our experience, many executives have taken steps to drive down the costs of delivering IT services, most haven't solved these fundamental barriers to productivity breakthroughs. Meanwhile, performance pressures on IT are rising as bank margins remain under pressure as a result of modest global growth and continuing uncertainty in financial markets.

Against this backdrop, we believe that IT executives should consider adopting lean-management techniques[2] and practices to gain sustainable improvements in operating performance. Among the companies we have studied, the adoption of lean improves both efficiency and effectiveness in areas ranging from infrastructure management to software development. Financial institutions

[1] For more, see the full report, *The state of global banking— in search of a sustainable model* (September 2011), on mckinsey.com.

[2] The lean-management approach seeks to create an environment in which improvements occur continuously, by reducing variability in performance and developing the skills and awareness of employees so that they can identify and eliminate waste.

Takeaways

IT executives often struggle to gather data needed to fine-tune productivity and performance.

Lean approaches can provide a framework to standardize IT work practices, balance workflows, and monitor progress.

Lean can relieve capacity constraints by prioritizing and routing incoming work and by minimizing interruptions.

Applied across specialized IT environments, lean can give leaders clearer performance data and a better way to communicate with the business.

have used lean to reduce end-to-end response times for help desks and to improve the real-time monitoring of key systems. Lean principles have even helped IT organizations shorten the time needed to develop and maintain applications by 10 to 25 percent, while reducing the number of bugs in the test and postlaunch phases by 20 to 45 percent (Exhibit 1).

Lean achieves these benefits by offering frontline IT employees and IT managers simple yet powerful ways to gain more control over their systems and work environment:

- standard work practices to improve quality, consistency, and response times

- performance transparency, which allows work groups to measure their progress, prioritize work, and meet targets

- demand management, so that employees can work with fewer interruptions and focus on tasks matched to their skills

- broadening the skills of IT employees to minimize "silos" and improve the sharing of best practices

Standardize work practices

The development of standard work practices is the foundation of constant improvement over time and therefore one of lean's cornerstones. Our experience shows that it is among the most effective ways to improve an IT department's quality, consistency, and response times. Many IT processes lend themselves naturally to standardization.

Within IT infrastructure management, for instance, teams can cut costs and time significantly by establishing standard configurations for workstations and servers and by implementing standard flows for call handling and intervention. In programming environments, basic tactics such as the enforcement of common standards for naming conventions, code structures, documentation, and architectures can go a long way toward reducing errors and creating applications that are easier to update and repurpose. These tactics also can help reduce differences in productivity among groups.

One financial institution discovered that high turnover, combined with misaligned incentives and a lack of oversight, had spawned a variety of coding practices that in turn led to uneven testing results and recurring production issues associated with software bugs.

To increase cohesion, the IT department implemented a rigorous peer review process that identified and incorporated best practices (for example, more efficient, modular designs for software applications architecture). Management led a series of small on-site training and coaching sessions to ensure that the changes stuck. These meetings were accompanied by frequent performance reviews and "sit withs"—short, informal meetings in which managers sit with their employees to understand issues, share best practices, and solve problems. Over time, better coding techniques became routine.
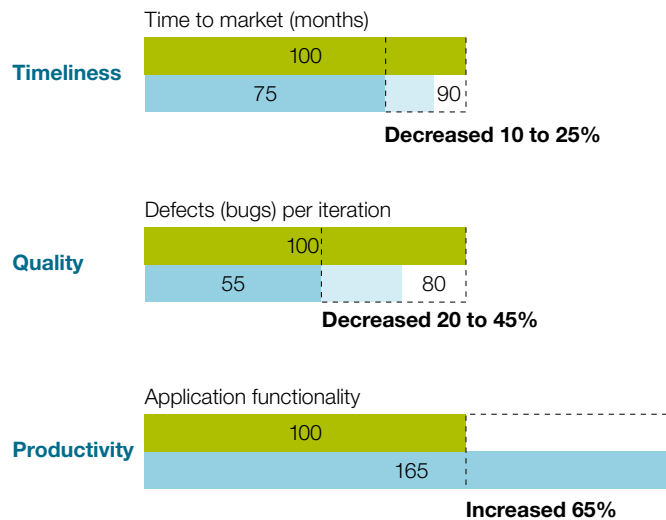
Introduce transparency

All too often, established IT performance measures fail to give teams the information they need to

Exhibit 1

In application development, lean delivers substantial benefits across timeliness, quality, and productivity.

Index: baseline = 100   ■ Baseline   ■ Post-lean

Timeliness

Time to market (months)

100	
75	90

Decreased 10 to 25%

Quality

Defects (bugs) per iteration

100	
55	80

Decreased 20 to 45%

Productivity

Application functionality

100	
165	

Increased 65%

manage their daily performance. Why? Because the value that IT delivers is very difficult to measure: there is no explicit production of files, nor are there sales numbers to use as the defining metric. Instead, IT departments often mix together measures of effort and generated output into a single metric, the "man-day." This does not address the need to coordinate the efforts of highly specialized teams of professionals so that they complete projects on time. As a result, we find that managers often struggle to assess and manage progress against targets and to gauge trends in IT performance over time.

To provide a more empirical and efficient way of managing software-development projects, lean enjoins the use of visual performance boards together with the use of industry-standard measurements. These metrics are designed to quantify

the complexity of IT software development, taking into account many parameters. Some IT units are industry standards (function points, for instance), enabling comparisons across companies and industries, but remain complex to implement and sustain. Other metrics (for example, use case points, story points) can be implemented more rapidly within smaller groups of development teams. For every major application under development, visual performance boards provide instant information about which tasks each developer is working on and which have yet to be completed. The boards give the team leader a clear view of who is doing what and of individual and overall workloads (Exhibit 2).

Each day, managers determine the number of tasks the team completed that day (the "burndown rate"). Teams can then track their actual progress

against the plan and monitor the allocation of resources. Most important, the boards provide teams with an opportunity to spot emerging issues that might otherwise go unseen and uncorrected, while helping to engage the business on issues ranging from delivery expectations to the scoping of projects and clarifications of user requirements.

One large financial institution, for instance, used a lean project-planning approach to correct what had become an intractable series of product delays. IT team leaders met daily to review production output (and the number of planned versus actual production hours) and to assign remaining story points[3] and tasks. Insights from these reviews helped the IT team to produce more accurate release schedules. In six months, the bank's IT

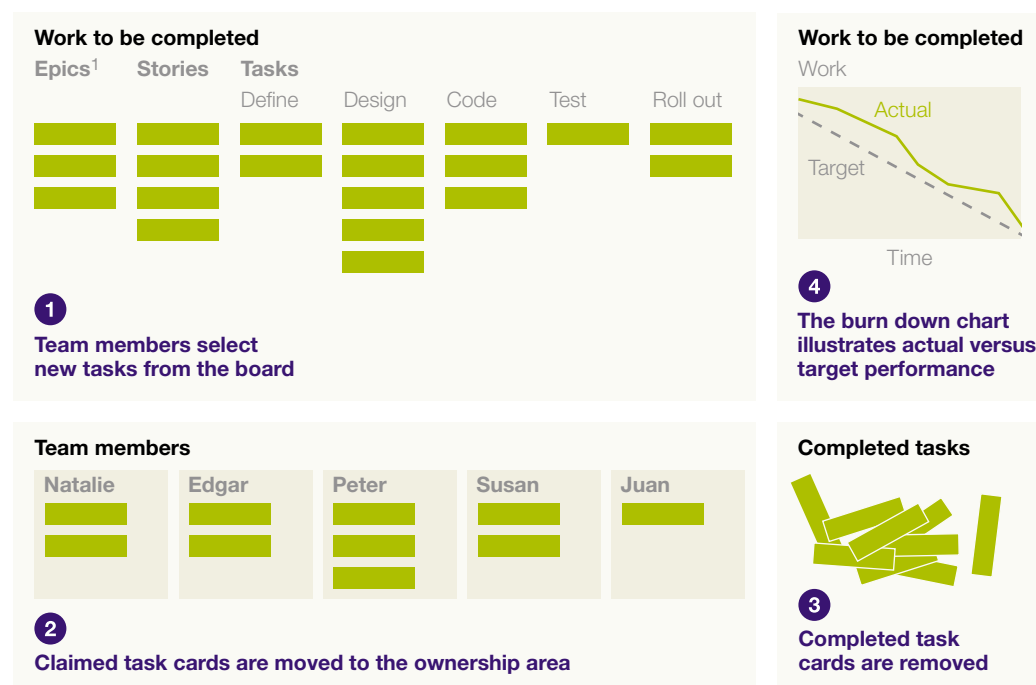[3]Story points are unit measures of software programming work.

department increased its capacity by 20 percent while improving its on-time launch rate. That success, as well as greater transparency and accountability, gave the department more credibility with the business, while also giving IT managers a much better sense of their teams' average pace for different types of projects. Such performance data allowed the CIO to compare productivity across teams on an apples-to-apples basis, something he hadn't been able to do before.

Manage demand

Lean can play a significant role in helping IT organizations to manage incoming requests—an increasingly important competence amid rising

Exhibit 2
A visual performance board for software development.

Work to be completed

Epics[1] Stories Tasks

Define Design Code Test Roll out

1 Team members select new tasks from the board

Work to be completed

Work

Actual

Target

Time

4 The burn down chart illustrates actual versus target performance

Team members

Natalie Edgar Peter Susan Juan

2 Claimed task cards are moved to the ownership area

Completed tasks

3 Completed task cards are removed

[1]Epics are large user stories that are typically disaggregated into smaller user stories to facilitate implementation.

demand for IT services. The lean approach involves rationalizing demand channels to minimize interruptions and prioritizing and routing incoming requests to balance workflows.

Rationalize demand channels

In the intense work environment of many financial-services IT departments we have studied, application developers may switch tasks up to 30 times a day. E-mail, voice mail, shoulder taps, and other interruptions dramatically slow down the work. Lean diagnostics can help determine the extent of this "context switching" and the time developers spend dealing with unplanned activities. One bank, for instance, was surprised to learn that e-mail, phone calls, and unscheduled service requests consumed, on average, 25 percent of every development hour.

The solution usually lies in streamlining the number of channels that requests flow through, which reduces the amount of time spent on interruptions and helps managers prioritize tasks more efficiently. By introducing basic self-service tools for end users and funneling all remaining service requests through a specific contact person, for example, one IT department reduced by more than half the average number of interruptions its developers experienced.

Prioritize and route requests

To weed out relatively low-value projects and route the remaining ones more effectively, IT organizations need a way to segment incoming requests by type, complexity, and urgency. Standard work orders allow managers to assess these characteristics quickly. One European bank, for example, assigned a traffic coordinator to field and vet incoming queries that had previously gone straight to specialists. Authorized work orders were

directed to a project manager charged with prioritizing requests, sequencing the workflow, and scheduling the necessary resources. These organizational changes improved productivity and reduced uncertainty for all stakeholders.

The IT help desk at another European bank also had no formal process for scoping the requests it received. The predictable result: chronically haphazard estimates for the needs and time frames of projects, leaving the bank scrambling to find qualified staff at peak times and to occupy excess staff at idle ones. To fix this imbalance, department leaders created a simple classification system that allowed help desk personnel to sort incoming requests by application, platform, and complexity. With projects tagged and labeled, workflow managers had a better sense of their staffing needs. After "right-sizing" teams, managers could distribute tasks to the appropriate specialists more quickly. The time needed to respond to requests fell by more than 60 percent.

Broaden the skill base

IT's technical nature, coupled with the difficulty of retiring legacy platforms, tends to generate highly specialized pockets of expertise. In our experience, many IT organizations lack a culture in which the various specialties share knowledge. Departments thus rely too much on certain employees or find themselves short handed when a number of projects simultaneously demand similar skills sets.

To help IT groups proactively manage their capacity against workload demands, lean programs may deploy "skill matrices," or charts matching particular skills to the employees who have them and

the project types that require them. In IT, these matrices can break down specialist "silos" by identifying what kind of cross-technology platform training is needed. The productivity of the software-development unit of one financial institution, for instance, jumped by 5 percent when it implemented a series of training programs on core IT platforms for its 30-member staff. The cross-training also helped end the risky practice of concentrating unique knowledge of certain platforms in just one or two people.

Put it all together

The IT departments we know often emphasize technical skills at the expense of management training and development. Yet the environment for IT managers can be particularly difficult, since many highly skilled IT specialists value their craft so highly that they resist efforts to direct their work or to gauge their productivity. As projects, user requirements, and release schedules have grown in complexity, the need for skilled IT managers has never been higher.

The lean answer, as we have seen, is to create management systems that help allocate workloads, direct performance, and determine the root causes of problems. Each system relies on practical tools to drive higher performance. Even more important,

these systems create transparency, so that every employee can make choices that improve the team's overall results. New ways of engaging highly skilled frontline IT personnel—brief daily "huddles" to discuss the status and potential issues of work, regular performance dialogues, and more transparent project assignments—can spur problem-solving capacities of employees in IT settings we have observed. Allocating workloads more appropriately reduces the need for "firefighting" and the frustration of the staff, while developing the skills of employees creates opportunities for personal growth. And a lean transformation provides a way for people who may not be natural leaders to develop the skills they need to become effective managers.

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Technology touches nearly every process in today's financial institutions, so improving the IT organization's performance can have a ripple effect across the wider business. By creating greater visibility and trust between IT and the businesses that use its services, stronger management mechanisms will help IT leaders to mitigate the view that their function is a "black box." This transparency helps banks, insurers, and asset managers trim waste, raise productivity, and better serve customers not only within the IT department but also across the organization as a whole. ○

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