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Cut the Fat but Keep Some Slack

Why excess capacity leads to greater efficiency.

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by Sendhil Mullainathan and Eldar Shafir

In 2002, the operating rooms at St. John's Regional Health Center, an acute-care hospital in Missouri, were at 100 percent capacity. When emergency cases—which made up about 20 percent of the full load—arose, the hospital was forced to bump long-scheduled surgeries. As a result, according to one study, doctors often waited several hours to perform two-hour procedures and sometimes operated at 2 a.m., and staff members regularly worked unplanned overtime. The hospital was constantly behind.

Administrators brought in an outside advisor, who came up with a rather surprising solution: Leave one room unused. To many, this seemed crazy. The facility was already being squeezed, and now comes a recommendation to take away even more capacity? Yet there was a profound logic to this recommendation, a logic that is instructive for the management of scarcity.

On the surface, St. John's lacked operating rooms. But what it actually lacked was the ability to accommodate emergencies. Because planned procedures were taking up all the rooms, unplanned surgeries required a continual rearranging of the schedule—which had serious repercussions for costs and even quality of care. The key to finding a solution was the fact that the term *unplanned surgery* is a bit misleading. The hospital can't predict each individual procedure, but it knows that there will always be emergencies. Once a room was set aside specifically for unscheduled cases, all the other operating rooms could be packed well and proceed unencumbered by surprises. The empty room thus added much-needed slack to the system. Soon after implementing this plan, the hospital was able to accommodate 5.1 percent more surgical cases overall, the number of surgeries performed after 3 p.m. fell by 45 percent, and revenue increased. And in the two years that followed, the hospital experienced a 7 and 11 percent annual increase in surgical volume.

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We All Need Breathing Room

Many systems require slack in order to run smoothly. Old reel-to-reel tape recorders needed an extra bit of tape fed into the mechanism to ensure that it wouldn't rip. Your coffee grinder won't grind if you overstuff it. And consider roadways: In principle, if a road is 85 percent full and everybody goes at the same speed, all cars can easily fit with some room between them. But if one driver speeds up just a bit and then needs to brake, everyone behind that car has to brake as well. Thus, at 85 percent there is enough road but not enough slack to absorb small shocks, and traffic grinds to a halt.

Still, slack is routinely undervalued. Perhaps you used to have an amazing administrative assistant always ready to do the tasks you needed on short notice. But he wasn't always busy. In the interest of efficiency, the department was reorganized, and now you share the assistant with two other people. The office's time-use data revealed this new system to be a success; now the assistant's schedule is packed as tightly as yours. However, your last-minute requests can no longer be handled immediately. This means that with your heavy schedule, even the smallest shock sets you back. So you start to juggle, and fall further and further behind. The assistant had been an important source of slack. The fact that he was "underused," like that room at St. John's, is what made his role valuable.

When you have a lot to do, the standard impulse is to pack tightly to fit everything in. Otherwise, you are left feeling that you're not doing enough—that you could be more efficient. But it's a vicious circle. When your schedule is crammed, getting stuck in a traffic jam throws you into disarray. You are late to meeting number one, and with no time in between meetings, that delay pushes into meeting number two, and so on. You finally have no choice but to defer one of today's obligations to tomorrow, except, of course, that tomorrow's schedule is packed too, and the cost of that deferral ends up being high.

We fail to build in slack because we focus on what must be done now with too little consideration of all the things that may arise in the future, even in the near term. When the intangible future comes face to face with the palpable present, slack feels like a luxury. What should you do? Should you leave spaces open in your schedule just in case something unexpected comes up, despite the fact that there is already so much you'd like to do in so little time? The simple answer is *yes*. It's similar to allocating 40 minutes to drive somewhere a half hour away, or salting away some money from your monthly household budget for a rainy day.

Cut the Fat Carefully

Now, let's look at slack through a different lens. During the 1970s and the early 1980s, there was a widespread perception that many corporations were bloated. Some industries were so awash with cash that executives spent carelessly. Because of poor cash management, in fact, several oil companies were worth less than the oil they owned; the market anticipated they would simply waste their assets. The leveraged buyout wave in the 1980s was an attempt to solve this problem.

The logic was simple: Buy these companies and impose pressure by placing them in debt. Move them from abundance to scarcity. The discipline of debt—in our parlance, the focus that comes from scarcity—would improve performance. And a raft of empirical studies showed that, whatever their other consequences, leveraged buyouts did just that. One reason was that corporate fat gives some managers added incentive to spend poorly—even spend in ways that run counter to shareholders' interests. After all, it's someone else's money. By increasing leverage and reducing what is effectively free money, managers spend more wisely.

Leverage also had an effect because of the psychology of scarcity. Companies became "lean and mean," in part, for the same reason deadlines produce greater productivity. Being a hypervigilant manager who keeps costs low can require a great deal of cognitive effort. Such managers must negotiate diligently with suppliers and scrutinize every line item to decide whether an expense is truly necessary. This kind of focus is easier to come by under scarcity and harder to come by under abundance. Even private companies, whose managers are spending their own money, start acting "fat" when awash in cash.

As we have seen, slack can represent a source of great (though often hidden) value or it can represent waste. When slashing costs and reorganizing for efficiency, it can be hard to separate useful slack from true waste, and indeed, many of the leveraged companies of three decades ago were left at the brink of bankruptcy. Faced with that reality, they tunneled—they neglected everything besides the emergency at hand. Cut too much fat, remove too much slack, and you are left with managers who will mortgage the future to make ends meet today.

Illustration by Robert Neubecker

Fighting Fire with Slack

When organizations find themselves facing scarcity, executives become firefighters, focused on battling the immediate threat. Meanwhile, new fires are constantly popping up because nothing is being done to prevent them. As a result, structural problems—"important, but they can wait"—don't get fixed. When the Microsoft Corporation shipped its Windows 2000 software, it went out with 28,000 known bugs. The project team knew they were shipping a product with lots of problems, but they had already missed the deadline. As a result, they immediately began working on a first patch, which was intended to fix all the bugs they knew they had shipped out. Not a good place to be when reports of new bugs start coming in.

Understanding the logic of scarcity and slack can reduce the firefighting mentality. Consider the lesson of how banks have tried to manage risk. Banks have long recognized that managers, tunneling on the bottom line, do not sufficiently take risk into account (perhaps best demonstrated by the 2008 financial crisis). Many banks have introduced "chief risk officers," who sit apart from the rest of the management team and report directly to the CEO. They must approve financial products, loans, and other transactions, viewing them through the lens of risk.

Other organizations can take a similar approach to "slack management." Designate someone (or a team) to focus not on what needs to be done today but on the possible events that could disrupt your business tomorrow. This person or group can ensure that those who are focused on meeting immediate project targets are not borrowing from future projects, digging the organization deeper into a bandwidth hole. It is no coincidence that the advisor who proposed the shakeup at St. John's was an outsider, removed from the struggle for the next operating room. +

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