Business Technology Trends and Impacts Advisory Service

Organizational Agility

Council Opinion, Vol. 2, No. 8

DOMAIN:

Organizational Matters

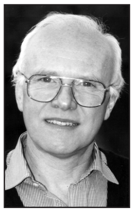
ASSERTION 31:

The present trend toward responding to each new challenge by increasing the load (and work hours) of knowledge workers will not persist. The already evident stress on knowledge worker retention obliges companies to rethink how they use people — or use them up. Efficiency and productivity were the watchwords of the 1990s, but today the emphasis needs to be more on agility. The prescription for organizational agility is markedly different from the prescription for efficiency and productivity.

SYLLABUS

Starting around 1990, the Western economies looked the threat of global competition square in the eye — and flinched. US and Western European companies began to use layoffs, firings, forced early retirement, downsizing, and right-sizing to eliminate jobs considered “redundant.” Those whose jobs were eliminated were, in general, the less busy workers. Their work was given to the relatively busy workers who remained, thus making those workers even busier. Organizations set out to make themselves “lean and mean.” What they really accomplished was to make themselves extremely busy. Knowledge workers — and IT workers in particular — are busier now than they have ever been before. This trend will not continue.

Busyness is not the same as business. Becoming busier may improve a company’s margins, but only at an important cost: the ability to change. An ever-busier workforce has no time for the critical reinvention function that allows their organizations to prosper in the midst of change. In addition, today’s extreme busyness leads to burnout and turnover of valuable knowledge workers. People who feel used look around for better options. They tend to gravitate toward companies that emphasize agility in lieu of efficiency.



OPINION BY TOM DEMARCO

Set your mental calendar back a decade or so and remember your attitude toward Japan. Japan was then routinely called the "Pacific tiger" or "colossus of the East." Forecasters at the Ministry of Industry and Trade (MITI — the Japanese national think tank) were predicting that the Japanese economy would surpass that of the US by 1999. Western managers tended to think of Japanese workers as more efficient and more willing to work long hours than their Western counterparts, capable of producing higher quality in less time and at far lower costs. Such managers were concerned about being rolled over by the Japanese and other highly efficient foreign competitors.

One way to look at the great surge of efficiency that was thrust on us in the 1990s (including layoffs, downsizing, and right-sizing) is as an attempt to remodel ourselves after Japan.

SO, HOW DID THE 1990S PLAY OUT FOR JAPAN?

The 1990s were not kind to Japan. The highly efficient, disciplined, hard-working Japanese companies we used to fear have now gone through more than a decade of decline. The Japanese economy has been in a tailspin for a period longer than the duration of the Great Depression. Japanese companies have proven slow to climb up off the mat, dust themselves off, and get started again.

The wild card that came along in the early 1990s was the Internet. We learned the adage "the Internet changes everything." But that idea eluded Japanese companies. Today, 11 years after the birth of the Internet, there is virtually no Japanese presence on the 'Net. You can't buy services, do banking, make reservations, or conduct almost any other business with Japanese Internet providers. It's as though the Internet and the transition to a service economy never happened.

Clearly, the awesome efficiency, discipline, and rigorous work ethic that are legendary in Japanese companies were not enough to help those companies react to sea change. In becoming so efficient, they lost the ability to turn on a dime. Many US companies, in contrast, did turn on a dime, and they captured the lion's share of the new economy. Agility: 1; Efficiency: 0.

LEAN AND MEAN RECONSIDERED

If agility, not efficiency, was the real watchword of the 1990s, what does that say about the US and Western lean-and-mean movement that became so popular during the same period? I assert that lean and mean was a mistaken reform, ill-suited to the practical realities of its time, and particularly ill-suited for knowledge industries like IT. As we can see, the US companies that practiced it most aggressively (Sunbeam and AT&T, to name just two) ended the decade far weaker than they began it.

The main change we made to become lean and mean was to load knowledge workers with far more work. This is the change that now needs to be undone to make any other change possible.

SLACK

When you lay off some people and load up the others with their work, the effect is to drive slack out of the organization. People are on average busier, so the organization at least *looks* more efficient. On any given day, perhaps it actually is more efficient; but over time, two negative effects of reduced slack begin to appear:

- People feel overworked and therefore used. One of the most important findings of exit interviews conducted with departing employees is that such people often make reference to feeling used. Overwork is at first an affirmation of importance, and workers tend to be willing to go along at first. But over time, they become tired and disenchanted and finally end up feeling abused. These valuable corporate assets are now in danger of leaving. (For more about the effect of overwork on attitudes and the propensity to leave, see *Feeling Overworked: When Work Becomes Too Much*, a study by The Families and Work Institute and available from www.familiesandwork.org.)

- The organization's ability to change and reinvent itself is damaged. People are too busy doing the work to take the time to rethink it. When change becomes imperative, people resist. They tend to feel insecure (why not — since their ex-fellow workers have been laid off) and unwilling to risk looking inefficient at new tasks, particularly when there is so much organizational emphasis on efficiency. There is no greater damper on willingness to change than a lack of safety. (For more about the effect of reduced slack on agility, see my book *Slack: Getting Past Burnout, Busywork, and the Myth of Total Efficiency.* Random House, April 2001.)

After an ill-advised decade of driving slack out of our organizations, it's time to put a little bit back in. Managers, and people in all knowledge positions, need to be more lightly loaded to have some time to take on the necessities of quick change. The first step for a company to become more agile is to make its managers and workers less busy. Reinvention takes time, and busy people can't do it.

Slack needs to be increased so that people who work with their minds at all levels have some meaningful choices in their workday and the time to make intelligent sense of such choices. Slack is also a direct antidote for other problems that manifest themselves as side effects of lean and mean, including burnout, ruinous employee turnover, reduced trust of organizations, and worker disenchantment.

Two recent examples of companies reintroducing slack are Verizon and United Airlines. Both explored the limits of using overwork to increase efficiency and are now taking steps to reduce overwork. Of course, both felt the effect of employee pushback: Verizon in a strike focused on mandatory overtime, while United experienced more than 4,000 canceled flights in the summer of 2000 due to employees unwilling to increase overtime hours.

PERSONAL GROWTH

From your employees' perspective, the main thing lost when slack is reduced is opportunity for personal growth. Personal growth is as important to your workers as salary. Cutting the chance of self-improvement through continuing new experiences will drive people away. To keep your people, you need to make it possible for them to think up new approaches, reinvent parts of the organization, and consider new ways to interact with your markets.

Companies have a sad tendency to think of change and reinvention as something that is controlled by a small guru class and foisted on all others. The healthiest companies have learned the opposite: that change and reinvention have to happen throughout the organization. What constitutes reinvention from the corporate perspective is made up of myriad challenges (personal growth opportunities) for the individuals that make up the corporation. Cutting people enough slack to take on these challenges is an important form of organizational investment.

FOCUS ON FRAGMENTATION

One of the key ways we undertook to load workers more heavily was to fragment their work. Two workers who were only 70% loaded were replaced by one worker who was 140% loaded. The direct effect was that the remaining worker was way too busy to be a contributor to ongoing reinvention (too busy to think about the work, only able to do the work), and the organization became less agile. But just as important, the worker now had two different jobs to do and had to bear the additional burden of task switching perhaps one or two times during the day. These task switches are not free. As a conservative approximation, each addition to a worker's portfolio of jobs costs about 15% lost to task and context switching. So assigning a second job to a worker is the equivalent of throwing away six hours of that worker's time. Task switching is worse when the two tasks are mode-incompatible. For example, a programmer who is now obliged to answer the customer support hotline loses far more to context switching because the all-consuming task of programming suffers more drastically from interruption.

STRATEGIC IMPLICATIONS

Moving away from lean and mean is going to make your organization a little more prosperous and kind. It might make you marginally less efficient, but much more effective. Here's what needs doing:

1. Stop making a cult of busyness. Being extremely busy is nothing to brag about. Make it safe and admirable for people to be un-frantic and un-driven. Managers, in particular, have to be recognized as effective when they and their people are not madly busy.

2. Cut your people some slack. Slack feeds reinvention and is interpreted by knowledge workers as opportunity for growth. Increasing slack should pay off directly in increased employee retention.

3. Monitor turnover and take steps to reduce it. In this day of supply shortages of all kinds of knowledge workers, corporate policy has to be tuned to optimize employee retention.

4. Defragment your people's work. For IT workers, this means one project per employee. Establish a policy guideline to achieve this, and measure progress against the goal.

RESPONSE/CONCURRENCE BY TIM LISTER

How do you stop making a cult of busyness? How do you cut your people some slack? Start by looking at the work your people are busy with. Is everyone working full-time on a vital new system or a critical new feature for an existing product? The answer, most likely, is no. Many IT organizations are captive to their constituency to such an extent that they just can't refuse any work brought forth by their customers, no matter how worthless.

I have seen this kind of dysfunctional prostitution in both major segments of our industry. For internal IT departments, this problem is very common. The internal IT group is viewed as a service center of infinite capacity by the other various parts of the organization. "I am a business line, I want a project done now, and I have funds." "You, IT, are not at full capacity doing *my* work, so get going on *my* project." The IT organization has no capability, maybe no will, to decide whether to take on the project and postpone other work, postpone the project and keep on with their current work, or farm out this new project to a third party. They feel they must accept the new work, pretend no other previous commitments are endangered by this added project — and move that much closer to being a mile wide, an inch thick, and frantic.

The IT organization that makes products takes a slightly different, but equally unhealthy, subservient role. In this case, some combination of sales, marketing, and current customer base pull all the important strings. "If the product doesn't have this new feature by the fourth quarter, we won't be able to sell any at all." "If you don't make this change, we will consider moving to a different application." "If we can only get this feature set in, a whole new market niche will open up to us." "The market window is closing; the market window is closing!" Fear of missing some opportunity, any opportunity — no matter how small, no matter how dubious — rules the minds.

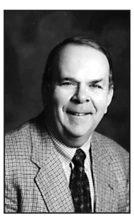
The best success in fighting the infinite capacity view that I have seen has been with some form of formal project or product management office (PMO). When working well, a PMO seems to have these characteristics:

- It is the only door through which work requests pass into the IT organization.

- It has a standing group of IT and customer personnel who make the tough calls quickly and definitively as to what is on the front burner, what waits in the queue, and what falls off the stove altogether.

- There is some safety-valve mechanism that allows a customer to decide to go outside the IT group for service if he or she cannot abide the PMO ruling. This amounts to contracting the job out, if the client wants the work done sooner than the PMO schedules it.

The key here is to get a handle on the capacity for an IT group to do work and use that handle to steer the major decisions of IT — what gets worked on and when. If you cannot assess capacity, you'll never know what amount of slack makes sense for your organization. You will never know how much slack is in your organization today, when that new request appears at your door.



RESPONSE/CONCURRENCE BY JIM HIGHSMITH

I concur completely with Tom's opinion. As I was reading through the opinion, I recalled a developer's comment after an intense four-month, accelerated, iterative development project: "I worked less overtime on this project than on any previous project in the last several years." More success, less overtime — maybe there is a trend developing here. Extreme Programming (XP) practices limit work to a 40-hour week. The intensity of XP's pair-programming, a productivity and effectiveness improvement practice, precludes doing it 10 — or even 8 — hours a day. Intense time and slack time work together.

In *Adaptive Software Development* (Dorset House, 2000), I recommend varying the pace of development. During project initiation, people need time to think through the objectives, problems, approach, and more. Frantic hurrying during project initiation usually results in restarting the project when the objectives are finally clarified. During iterative development cycles, the intensity increases (but not overtime). The end of the iteration is a time for review and reflection — not a long period, but a day or two of reduced intensity. Going fast all the time results in wrecks. Alternating intense time with slack time provides a project team with time to think, time to adjust, and time to be agile.

In the current debate over agile-versus-rigorous software development and project management methodologies, one of the issues has been measurement. I define agility as the ability to create and respond to change — creating change that competitors must respond to and also responding to changes that competitors and customers demand. Unfortunately, our measurement systems are geared to efficiency and conforming to plans: cost, schedule, defects, and scope. Project managers are measured on their ability to conform to plan, not meet the need for a quick change in direction. I recently had one IT project manager relate a story about a very successful project — from the user's perspective. However, IT management was less pleased. The problem? The project incorporated too many changes. Somehow the connection between customer satisfaction and the team's responsiveness to change eluded management.

If agility is important (I think it is extremely important), and adequate slack time is critical to achieving agility (I concur with Tom on this linkage), then we have to update our corporate and project measurement systems to include measures of agility. As long as efficiency and cost reduction remain the primary measures of success, our ability to inject adequate slack time into our work environments will be very difficult.

RESPONSE/CONCURRENCE BY ROB AUSTIN

I agree strongly with the assertion and the recommendations. It is interesting to consider how our reverence for the idea of "lean and mean" arises. I haven't studied this question exhaustively, but I have hypotheses.

As with most flawed ideas, there is an element of truth in the idea that "leanness" and absence of slack have benefits to companies over the long term. The hierarchical organizational forms that characterize most modern companies were developed in an era when we did not have our current communication capabilities. A large part of the function of traditional hierarchies was to manage information flow. Some of the changes that we have made to organizations have been inevitable adjustments to reflect the fact that we no longer need to devote as much effort to managing information flow because of the nature of new technologies. Some of these adjustments have manifested themselves in terms of reduction in bureaucracy and, often, in staffing levels. In economic terms, this is a constructive element of the move toward leanness. The evidence of improvement is that the elimination of bureaucracy does improve agility, as the organization sheds encumbering processes designed for an earlier time.

But the shift has, in many cases, gone too far. In celebrating the elimination of bureaucracy and new technical capabilities, we have come to think of leanness and lack of organizational slack as ends in their own right, rather than means to business ends. The search for leanness has become a kind of short-termism that can be very damaging.

As is usually the case, market pressures fuel some of this overzealous pursuit of leanness for its own sake. The accounting equation that calls for increasing retained earnings (the balance sheet entry into which income is collected) in a regular and relentless way provides constant pressures to reduce cost. This is part of what drives the efficient engine of capitalism, but it has a dark side as well. As accountants readily acknowledge, there are many important intangibles that are not summarized in the accounting equation. This kind of short-termism, like many other kinds, is to some extent an artifact of how we measure. We often sacrifice unmeasurable (or unmeasured) efforts or assets to do better on measurable (or measured) ones.

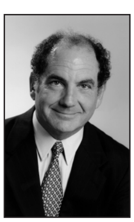
One check on the trajectory of a firm commonly applied to financial statements is whether capital investment roughly offsets depreciation. If this is not the case, then some of what the firm is reporting as income can be thought of as liquidating of assets, rather than actual productive activity. Such actions are tempting to firms struggling to shore up short-term appearances.

If selling off assets to create the impression of additional income is tempting for physical, measurable assets, it is even more tempting for intangible or human assets. As Tom points out, organizational slack is often a vat in which innovativeness and adaptiveness ferments. Draining your reservoirs of innovativeness and adaptiveness may not seem to matter much in short-term, stable business environments. The resulting apparent efficiency gains may seem of greater consequence than any loss of agility. But when business conditions or competitors' products change, you may suddenly discover the price you have paid in reduction of agility for short-term efficiency improvements. You may be unable to make needed changes.

One of my favorite stories on this point is about how Sun Microsystems discovered the importance of the Web. Sun was, of course, a Web pioneer; some estimate that at one point in the early history of the Web, one-seventh of all the world's Web pages were behind the Sun firewall. But the company did not come to its deep and early understanding of the importance of the Web easily or efficiently. The Web came to Sun via grassroots experimentation by engineers who were, according to their job descriptions, supposed to be working on other things. Giving people room to experiment is an explicit part of the Sun management approach. When I was writing a case based on this story, one of their vice presidents told me, "One guy might be using 5% of our total [network] bandwidth, but we don't necessarily stop that — he might be working on something that leads to the next big product." When I teach this case, and we look at how Sun got around to deciding that the Web was important, it looks really messy and inefficient, so much so that sometimes my students (including some participants in executive programs) assert that Sun was "lucky" rather than "good" in how it managed its development of Web capabilities. Another interpretation is that Sun was using slack to ensure its ability to swerve strategically: to see and adapt to important new things and to adjust when things unfolded in ways it did not anticipate.

As this story indicates, slack is doubly important in knowledge work settings. I know this from recent experience. When I was managing a group of programmers in a startup setting, I found it quite difficult to push workers who can do things you can't and know they have other job options. My management of these workers was greatly based on personal relationships with them, and I insisted that we have a good excuse before asking for heroics. Most people cannot be constantly heroic. Even those who can start to wonder whether being constantly heroic is a good deal for them, in terms of quality of life. They also start to wonder, with justification, about the kind of person who asks for constant heroism.

In current business conditions, with the tech market way down and many workers who thought they'd be rich by now instead looking for jobs, we may face a backlash in this area. The most recent promise we've extended to workers to make hellish work schedules seem okay is that it would make them fabulously wealthy relatively soon. Needless to say, this promise has lost some of its appeal. Similar appeals to justify the importance of slack elimination will probably be a harder sell going forward. In the short term, some will marshal fear of job loss to reach for greater leanness. But in the long run, in my opinion, this approach is unsustainable.



RESPONSE/CONCURRENCE BY PETER O'FARRELL

This opinion represents the latest in a series of Cutter Consortium discussions on the nature of firms that rely on knowledge workers. Eventually, Tom's book *Slack* will likely take its place in the pantheon of thoughtful commentaries that identify the causes of corporate stagnation in the age of the "knowledge-driven" firm. Unfortunately, its lessons won't appear in the management of very many firms until the innate superiority of those firms that do incorporate slack appears beyond question. Then, of course, the herd of followers will rush to the new paradigm, only to find that they'll never catch up to those competitors whose agility has become an essential part of their culture.

As business managers, we tend to be captive of our age as far as management thinking goes. Even when managers don't believe the prevailing "wisdom," those unfortunate enough to shepherd public companies fall victim to securities analysts and institutional investors who find appeal in short-term roads to profitability. In the recent two decades, any evidence of slack in the daily activities of either managers or professionals has been viewed as indicative of incompetence on the part of those in the managerial hierarchy. Economists, at least, viewed the firm in a mechanistic framework that allowed construction of mathematically elegant, if operationally irrelevant, descriptions of a firm's operations. Efficiency was all, and "optima" the supposed holy grail of a manager's quest for sustained profitability. Nice and clean and elegant and rigorous — and wrong.

We've witnessed two decades of carnage on the corporate scene because of these mistaken beliefs in the way to profitability and growth. First there were the restructurings (laying off workers and loading up on corporate debt) that accompanied the leveraged buyout craze of the 1980s. That subsided with the crash of the junk bond machine and gave way to a new rationale for the same tactics. Reengineering arrived with the 1990s and enjoyed some notable and well-publicized early successes. Of course, that was before employees with knowledge of the firm's critical value chains and business processes quickly figured out that they were essential, but only temporarily so, to the reengineering process. They had to assist in eliminating their own jobs in the quest for efficiency. Small wonder that companies later swerved off this drastic road to enhanced corporate profitability. In recent years, we've witnessed a somewhat less elegant efficiency fad with the consolidations and rollups among firms in similar or complementary product markets. Again, it all sounds wonderful until you realize that the "synergies" arise solely from layoffs. This of course presumes that the wisest and most essential among the employees are too dumb to figure this out and find another home on their terms, rather than using the outplacement service.

Years from now, when the latest chapters in corporate managerial heresies are written, we'll find that proponents of the misguided solutions ignored a rich literature on the true nature of the firm and its requirements to grow and flourish. Beginning with the classical economist Alfred Marshall, there was a description of the firm's competitive efforts as a dynamic process, not an optimizing process with a static entity. Joseph Schumpeter's recent resurrection as the prophet of "creative destruction" and its essential role in capitalist economies provided a ready rationale for the unprecedented upheaval brought on by the arrival of the Internet. As yet little remembered, but no less essential, will be Edith Penrose and her magisterial tome on the growth of the firm. About 40 years ago, she clearly defined the essential roles of knowledge and said that "unused managerial and other productive services … provide an incentive for expansion of the firm." (Could she possibly mean slack?) So in the late 1950s, the importance of slack was already recognized, and we've spent 40 years losing our way by trying to find more efficient approaches to organizing the work of firms. It hasn't worked and will continue to prove even more ineffectual as knowledge continues its inexorable march as the true currency of the firm.

The Business Technology Trends and Impacts Advisory Service Council Opinion is published by the Cutter Consortium, 37 Broadway, Suite 1, Arlington, MA 02474-5552, USA. Tel: +1 781 641 9876 or, within North America, +1 800 492 1650; Fax: +1 781 648 1950 or, within North America, +1 800 888 1816; E-mail: service@cutter.com; Web site: www.cutter.com/consortium/. ISSN: 1529-4870.

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- ✔ **30% of respondents are using e-Procurement**
- ✔ **22% of respondents are using e-CRM**
- ✔ **7% of respondents are using m-Business (mobile business)**
- ✔ **Java, XML, and Application Servers continue to be the core e-business development technologies:**
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Survey of E-Business and IT Practices

By Chris Pickering, Cutter Consortium Senior Consultant and President of Systems Development, Inc. August 2001

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- E-CRM
- E-SCM
- E-marketplaces
- Portals
- M-business

Each of the above applications is analyzed for:

- Whether it is being used, and if so, how much
- Typical success rate
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- Which products or packages are used
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Praise for the ***Survey of Advanced Technology***, the predecessor report to the ***Survey of E-Business and IT Practices***:

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