Fixing the Business Performance Issues That Keep You Up at Night

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Even at the best-run companies, executives suffer sleepless nights wrestling with business performance issues. Perhaps a key project missed its deadline or went way over budget. Perhaps product quality isn't up to snuff. Or maybe unpredictability is the insomniac's burden: sometimes projects go well and deliver quality on time, and sometimes they don't—but nobody can seem to predict which is which, so the problems remain unidentified and uncorrected.

Take solace. If problems like these keep you up at night, you're in the company of some of the world's most-admired brands. In recent years, I worked with a top global carmaker who discovered that the latest version of their infotainment system caused their flagship car's other electronic systems to fail and delayed the release by 18 months – catastrophic for a 12 month release cycle—with equal potential for a calamitous effect on corporate revenue and profits. I also know a leading software company that had to continually rework its software, sacrificing all profit margins to do so, despite building an elaborate peer review process designed to sniff out defects during product development.

In these cases, and many others, the problem's root cause was buried deep within the companies' processes, or lack thereof. The solution started with identifying the root cause, then implementing process improvements that not only fixed the immediate issue, but delivered long-term improvements in business performance, as well. And in each case, the teams used the Capability Maturity Model Integration (CMMI) to solve the problem effectively and efficiently.

The core of CMMI is a proven set of global best practices designed to improve business performance and organized into critical capabilities that address planning, solving problems, governance, requirements development and management, quality and many others. It's been used by thousands of organizations worldwide in many different industries to address challenges like those described above, and many of those organizations have also contributed to refining the practices embedded in the CMMI model over time by sharing their experiences. In CMMI Version 2.0 (V2.0), a recent update to the model, we have tightly linked specific business practices to key business performance objectives. By doing this, V2.0 enables organizations to be able to measure the effectiveness of process improvements to determine whether the organization really achieved the intended business value.

A Microscope for Business Performance Issues

CMMI V2.0 provides a microscope that enables companies to examine the way they currently do things, and pinpoint where they are going wrong by comparing their current processes to global best practices across industry. By analyzing the gaps that CMMI V2.0 illuminates, companies can develop a roadmap for improving business performance. In turn, this drives continuous improvements in performance across the business in a consistent, predictable and systematic way, by continuously tuning practices and propagating the same approach to other critical areas.

This approach has been strikingly successful for solving problems in highly complex products. Take the issue with the global carmaker's infotainment system, which emerged during the development of the new flagship car model. Upon startup, the infotainment system immediately crashed other subsystems within the vehicle, essentially rendering the car inoperable. Obviously, this was extremely serious; not only do cars now rely heavily on electronics for safety, but their electronics have become exceptionally complex, consisting of tens of millions of lines of code spread across dozens of subsystems from different suppliers. Solving the problem could have taken months, with a potentially massive impact on sales and profits.

However, the manufacturer leveraged the CMMI model and was able to zero in on the problem in just five days. The model revealed key gaps in the company's development process related to integrating subsystems and defining the interfaces between them. Because important process steps were missing, the electronic components were not properly integrated, and therefore did not work together. Once those issues were addressed, the carmaker solved the problem in weeks, paving the way for sales, and a return to profits for the new car.

Similar benefits have been shown in other industries. Some of the world's highest-performing software companies use CMMI; one used the model to cut the cost of producing its software by 40 percent, which then freed capacity to support more sales. At another firm, the head of the development was frustrated by the fact the company had developed a Rolex-quality peer review process for quality assurance, yet still had to continually rework its deliverables at great cost and customer frustration. It turned out that the problems lay elsewhere in the development process, and a more business performance-focused approach to process led to changes. This included better alignment of process rigor to business risk and performance, for example, replacing the expensive gold-plated review with a basic "Casio" review approach. The CMMI was the key to identify this shift.

CMMI V2.0 is now being used to improve the safety of medical devices, in an early-stage Food and Drug Administration (FDA) and industry pilot program. Medical devices are expected to work flawlessly for years; since in many cases, patients' lives depend on it. Identifying problems is essential to ensuring product quality and patient safety. The challenge, though, is that the traditional FDA-compliance process does not encourage experts to candidly discuss their concerns. The pilot program uses CMMI V2.0 to drive a collaborative process that surfaces problems that might otherwise go undetected, while protecting participants through confidentiality and offering the incentive of regulatory relief. This shifts the focus from compliance to continuous measurable improvements in product quality, with tangible benefits such as safer devices and lower development costs.

Performance Improvement Drives Competitiveness

In the fast-changing global business landscape, the highest-performing organizations win—and only those that achieve continuous business performance improvement remain competitive in the long run. CMMI 2.0 enables companies to drive performance improvements in an innovative and unique way which optimizes business processes to solve their most complex problems.

And the knowledge that globally proven best practices are driving their organization's business performance... well, that should help even the most stressed executives to sleep more soundly!