



Less is more

Yoav Ziv explains how saying no to multi-tasking enabled a pharmaceutical company to achieve a dramatic improvement in completing projects, without adding any extra resources

MULTI-TASKING is a common badge of honor in the modern world. Anyone who has interviewed job candidates in the last decade has heard at least one prospect, and probably many more, say, 'One of my strengths is that I'm a good multi-tasker.'

Unfortunately, there's no such thing as a good multi-tasker. Study after study shows that - far from increasing one's efficiency - attempting to complete more than one task at a time and constantly switching back and forth between tasks kills productivity, and not just at the individual level.

This seems counterintuitive, but if two employees are given identical tasks, the employee who focusses on one task at a time will always finish faster and with higher quality than the one who multi-tasks. The human brain can only focus on one task at a time, and every time one switches between tasks, the brain needs time to refocus.

The effects of multi-tasking are not limited to individuals, but have far-reaching consequences for organisations, as well. The multi-billion dollar Indian pharmaceutical company Dr Reddy's, for example, discovered firsthand how big the payoff can be from limiting the amount of work in progress and eliminating multitasking, by implementing a 'critical chain'-based project management method.

In just 12 weeks after taking focussed measures to sharply reduce its project teams' workload and reduce multi-tasking, the company's development group completed 83% more projects than it had in the previous 12, without adding any additional resources.

Specifically, it started using synchronised project management (SPM), a methodology based on Eliyahu Goldratt's critical chain method. SPM replaces the 100-year-old Gantt system, which forces people to

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work to a fixed schedule, and which breaks down in the face of uncertainty when plans get disrupted. SPM aims to ensure that everyone’s work is coordinated and exclusively focused on completing those tasks that are the most important for moving the project forward at any given time.

the multi-tasking/ synchronisation problem

For those who still believe in the power of multi-tasking, it’s easy to demonstrate how ineffective it is with a simple game, and all you need is a pen, paper and something to keep time. First, write the word ‘multi-task’ and, once the word is complete, write the numerals 1 through 9 underneath each letter. So under ‘m’, write ‘1’, under ‘u’ write ‘2’ and so on. Time how long it takes to complete the task.

Next, do it again, except this time, write a

letter, and then a number. So, start with ‘m’, then write ‘1’ underneath it, then ‘u’ with ‘2’ underneath, and so on. Don’t forget to time it. People who play this game are often shocked by how much more time they take when they are forced to switch between tasks. Typically, it takes 30% longer to complete the task while multitasking, but it’s not unusual for it to take 2-3 times as long.

In organisations, the effect of multi-tasking is much worse, because teams depend on one another to finish tasks in a project before the next task can begin. For instance, in the above game, if it took 10 s to finish without multi-tasking and 15 s to finish while multi-tasking, that means that it took about 5 s to finish just the word ‘multi-task’ in the first scenario, but a full 15 s to finish writing the word in the second scenario. So if another team needed to wait until the word ‘multi-task’ was written before starting their own work, they would wait three times as long if the first team were multi-tasking.

Multi-tasking typically occurs because organisations start too much work at one time. Management’s intentions are good. They assume that it’s best to start as many projects as early as possible, in hopes of giving the organisation more time to finish them, especially if projects are typically late. In reality, however, this spreads resources too thin, forces them to multi-task, and ironically, ensures that all projects will finish even later than anticipated.

The bad news, of course, is that multi-tasking is sapping productivity. The good news, however, is that almost everyone does it, so those organisations that eliminate multi-tasking gain a significant competitive advantage.

Dr Reddy’s and SPM

Anj Reddy founded the company in 1984 to manufacture active pharmaceutical ingredients (API) and was listed on the Indian Stock Exchange in 1986. Since then, it has expanded into generics formulation and into innovation businesses, such as biologics, differentiated products and new drug discovery. More than 85% of its more than US\$1.5bn in revenues comes from outside of India.

The development group manages new product development for both the API and generics businesses. Before the company implemented SPM, it had far too many active projects with far too few (about 20%) finishing on time.

Working with project management specialist Realization, Dr Reddy’s followed the simple rules that govern critical chain -- reducing work in progress, eliminating multitasking, and prioritising individual tasks based on what will maximise total throughput for the organisation, even if

problems arise during project execution.

It began by reducing the amount of work in progress, so that people working on projects could focus and not multi-task. Work had not yet begun on 30% of the projects, so they were frozen. In addition, 30% of the active projects were also frozen, leaving 40% still open.

Next, the company took steps to ensure that every project team had a ‘full kit’ before starting work, meaning that they had everything required to finish the job before starting it, including:

- a source for the API;
- all materials for development;
- a location for the submission batch;
- a place to commercially manufacture it;
- a development strategy; and
- all approvals and licences.

When work starts without a full kit, people get frustrated, work is interrupted and the project experiences delays. The company created a 12-member project preparation team to ensure that every team could hit the ground running once it received its project.

Given what it knew about SPM and critical chain, the company expected to see results quickly, but was shocked by the magnitude of the improvement. Just 12 weeks into the implementation, it had completed 83% more projects in a quarter. And the development group also improved its on-time delivery by 300%, hitting 80% of its deadlines.

Management also saw a substantial improvement in the quality of work, especially development strategy plans, because resources were no longer spread too thinly. The company even discovered that it could assign 50% of the resources to a project, and it would still finish faster than before, because resources were multi-tasking so much less overall.

taking the first steps

This case illustrates the gains that can be achieved simply by eliminating multi-tasking and reducing the amount of work in progress to a manageable load. The critical chain breakthrough lies in keeping tasks and resources synchronised within and across projects, even in the face of uncertainties.

While the rules that govern critical chain are relatively simple, implementing and sustaining them throughout an organisation requires effort. But as Dr Reddy’s experience shows, simply implementing the first step – limiting work in progress to reduce multi-tasking – can produce enormous benefits. Truly, when it comes to projects, less is often more. **tce**

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