

# Don't ask 'Why are infrastructure projects late?'

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**By Sanjeev Gupta**

One needs to stop asking why projects are delayed. Projects are riddled with so many uncertainties that such a question just throws up the same laundry list of many “root causes”. But those “root causes” are just real-world imperfections.

Suppliers will be late, there are delays in mobilising labour, land acquisitions and clearances will face hurdles, and unforeseen problems will show up. All these imperfections can be reduced, but not made insignificant. (It's even worse to do a postmortem and ask such a question for a specific project that has failed. Every project is somewhat different, so this question is not only useless but also leads to just finding someone to pin the blame.)

Isn't it much better to ask, “How can we do projects in less time and more predictably, despite all the real-world imperfections?” Asking that question will invariably lead us to the realisation that we need to make better use of available time and resources, so that we can handle not only what was planned but also what was not planned.

Furthermore, asking that question will cause us to realise that resources and time are both wasted in projects because resources do not work on the right tasks at the right time. We need to just get resources to work on tasks in the optimal order.

The above point is worth explaining. When resources are limited, there is a choice to be made: which activities to do first, and which one to do next. The number of total scheduling possibilities across a typical project range from tens to hundreds, and the difference in the timeline between the worst and the best sequence is around 25 percent. So, working on the right task at the right time has huge leverage.

Unfortunately, the Critical Path Method, which is the mainstay of project management, does not address the problem of resource scheduling. In the words of its own inventors, James Kelley and Morgan Walker, “the Critical Path Method is based primarily on the technological requirements of a project. Considerations of available manpower and equipment are conspicuous by their absence. All schedules computed by the technique are technologically feasible but not necessarily practical. For example, the equipment and manpower requirements for a particular schedule may exceed those available or may fluctuate violently with time. A means of handling these difficulties must therefore be sought – a method which levels these requirements.”

A new scheduling approach based on the Theory of Constraints picks up where Critical Path left off. It has been applied to tens of thousands of projects, ranging from construction to drug development. After years of testing and refinement, it can be confidently stated that the approach not only works in the imperfect world of projects, but also consistently yields 20 percent to 50 percent faster execution. We call it “Focus & Finish”.

To illustrate, when projects are running behind, a good manager intuitively adopts a focus and finish strategy. She takes whatever resources are available, puts a stop to sprawling work fronts, focuses the team on as few work fronts as possible, finishes them, then focuses the team on the next set of work fronts, and so on.

Traffic is also a good example of our daily life. If you shove four lanes of vehicles into a three-lane highway, all the traffic comes to a screeching halt. But if you stop vehicles from entering the highway and allow them to get in only as and when a lane becomes available, traffic starts flowing. Even the cars that were stopped get to their destination faster.

Projects are late the world over. According to McKinsey and multiple other reports, 90 percent of the \$100M+ infra projects in the US are late by 20 percent or more. But while the US might be able to live with late projects, India cannot. To create economic growth and prosperity, our federal and state governments are making massive investments in infrastructure. Given that resource limitations are more severe in India, we need to systematically implement Focus and Finish scheduling from beginning to end, across all projects. It is simple. More importantly, it can mean the difference between growing at 8 percent a year versus 12 percent a year.

**(The author is CEO, Realization Technologies. Views are personal)**