John Seddon - Fools with Tools

When I teach students on Masters courses, I impress upon them the need to ask every lecturer who teaches them management tools two questions:

1.   Who invented this tool?
2.   What problem was he or she trying to solve?

Then students are encouraged to ask themselves: does my organisation have this problem?

It never ceases to amaze me how few lecturers can answer the two questions. They, like the commercially-motivated toolkit salesmen, usually react defensively when unable to answer the questions and assume tools have universal application. These actors have produced an army of fools with tools.

Let's take '**Takt Time**' as an example. **Toyota's Taiichi Ohno** invented it, drawing on the principles of 1930s German aircraft industry organisation. Ohno took the concept and developed it for the Toyota System.

What problem was he trying to solve? Ensuring that every part of his manufacturing system produced only at the 'required' rate, this rate being set by customer demand. Takt Time is a measure for managing the heartbeat of a 'pull' manufacturing system: essential for orchestrating all a plant's machines to work at the rate of customer demand.

Does any service organisation have this problem? No, since service outfits have no machines they have no need to solve the problem Ohno was solving. Yet we find Takt Time being promulgated by tools-protagonists as an essential step towards 'lean' service. For example:

"Takt time is the pace of customer demand … Takt determines how fast a process needs to run in order to meet customer demand.

To calculate takt time for a particular value stream, divide the daily net operating time by the total quantity of work units required for one day. The net available operating time is the total available work time minus meetings, breaks, lunch and any other non-value-adding activities." [Tapping and Shuker]

I know this will be considered manna from heaven for most service organisation managers, preoccupied as they are with solving the problem of sweating resources, maximising employee productivity. Ohno taught how this kind of approach to efficiency was and is flawed.

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In his system, machines could be allowed to stand idle, since what mattered was that the machine was ready when the 'pull' came. Ohno talked about the importance of 'operable rate' (is it ready to work?) over operating rate (how much the machine produces).

The flaw is even more crucial in service organisations. Indeed, the last thing any manager should want to do is to maximise the productivity of the workers, for the real and massive scope for improvement lies in the system, as it did for Ohno.

Demand as the greatest lever Crucially, the formula for Takt Time in service organisations ignores the nature of demand. It leads managers to assume that all demand coming in to, say, a life-insurer's new business process consists of applications for a new policy.

Yet studies usually reveal high levels of "failure demand" (demand caused by a failure to do something or do something right for the customer). Eliminating the causes of failure demand — calls we don't want — is the biggest single lever for improvement — and the tools' protagonists ignore it.

Variation in the work The formula also ignores the variation inherent in service demand. To stick with the underwriter, variations in underwriting rules mean differing requirements for information and health-checks for insurance applicants. Forcing workers to work to what are effectively 'standard times' will lead them to use their ingenuity to meet the standards, which is not the same as fulfilling the customer need.

Control in the wrong place This leads us to the most disheartening aspect of this abuse of Takt Time: it merely reinforces management's control over the worker, something Ohno would have abhorred. Ohno put the workers in control of the work. Ohno's favourite word was 'understanding'. He taught managers by having them study the work. He was adamantly opposed to codifying method, precisely because he foresaw the result: to a man with a hammer, every problem is a nail.

By advancing Takt Time as a universal tool we encourage managers to solve a problem they don't have and ignore real ones that offer considerable opportunities for improvement — the most overriding of which is how to design a service that absorbs the variety of customer demand, a problem quite different from Ohno's. But all those who have been fooled will never know.

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