

Article from

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# MANAGEMENT

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## **Solution to help managers use their loaf**

**Systems thinking is the best thing since sliced bread.**

**Selwyn Parker**

Want to improve the quality of creative thinking in your company? Try getting your managers to write their resignations.

Worried about the effect on your company of a price war? Do a BOT (behaviour over time) analysis to see the full horror of the consequences. Customers complaining that deliveries are late? If you think it would help to promote deliveries to the angriest customers, think again.

The solutions to these and other everyday commercial problems lie in systems thinking, which could become the next big thing in management.

Dr Kambiz Maani, associate professor in the University of Auckland's department of management science and information systems, is flat out giving in-house courses on systems thinking to organisations such as KPMG, Unisys and Television New Zealand.

Dr Maani is the co-author of a book, *Systems Thinking and Modelling* subtitled *Understanding Change and Complexity*, which explains in accessible language what it is about and how you can use it.

If you think your company may need fog lamps to see the way ahead, systems thinking should help.

"Systems thinking is a language to explain complexity," summarises Dr Maani. And, heaven knows, there is enough complexity around. It is already big in the United States. The clients of Massachusetts Institute of Technology, the cradle of this particular set of management tools, include Harley Davidson, Hewlett Packard, Ford and EDS.

But back to managers writing out their resignations. When Royal Dutch Shell wanted creative management solutions, it set up a series of workshops. At the start, every attendee had to spend 30 minutes drafting his or her resignation. Apparently, there is nothing quite like this to stimulate productive reflection, even if it is an exercise.

As for the price war, the BOT exercise would probably paint such alarming long-term results including plunging profit margins that it would deter most companies from pursuing the cut-price route.

Finally, angry customers. The obvious solution will not work. Queue-jumping some customers over others is a "fix that fails" in systems thinking language, that will probably come back to haunt the company by creating a "reinforcing pattern" of production disruptions, further delivery delays, more customer dissatisfaction and other unwanted consequences.

Powerful as it is, systems thinking does not claim to have all the answers. After all, among other things it tries to predict the future consequences of a present action and nobody has yet found a

method for saying what is going to happen tomorrow.

"We can't see the future," Dr Maani says. "But systems thinking is a tool that brings the future closer. It clears away the fog."

Systems thinking also goes deep to seek out underlying causes of certain phenomena. Very often, they are created by "solutions" in the past.

New Zealand's possum plague resulted from importing the pest for fur from Australia last century. And, suggests Dr Maani, the lowering of the legal drinking age last year has forced problem drinking down to even younger age groups.

A systems thinker probably would have picked all these up. Dr Maani is a true believer in its universality.

He has lectured politicians, informally advised rugby team managers, and even recommends it to families – "you can use systems thinking to talk to your teenagers."

This is not as silly as it may sound. American Jay Forrester runs a special unit at MIT where he talks to schools. So far, he has convinced 500 schools in America to apply systems thinking.

But do not think systems thinking is a new fad. It emerged in the 1920s from the growing recognition that Newtonian, linear thinking cannot cope with the interdependence, complexities and ambiguities of many chronic, contemporary problems – for example, in the interrelationships between cause and effect. Systems thinking seeks to provide a set of tools to solve them.

o *Systems Thinking and Modelling* by Kambiz E. Maani and Robert Y. Cavana, published by Prentice Hall, is an important book for any body trying to plot a course through the storms. It will not appeal to those who believe in off-the-shelf solutions.

## Working smarter no new idea

If systems thinking takes hold as a universal management tool, it will join a surprisingly small hall of fame of deeply influential management ideas over the last century.

Most of them are American made, starting with Frederick Winslow Taylor's "working smarter."

The foreman in a steel-making plant, Mr. Taylor practically invented productivity in manufacturing by isolating every step in the production process and figuring out the most efficient way to do it.

Mr. Taylor, who died in 1915, is often reviled as the man who dehumanized industry, but there is no doubt that "working smarter" boosted all-round economic wealth.

Alfred P Sloan jun is recognized as the father of the modern decentralized corporation. In his case, it was General Motors but look what they have done to it since. A few years earlier, Mary Parker Follett, a social worker and political scientist, empowered workers by advising bosses to include them in decision-making. However, workers had to share the responsibility too.

Then there was the guru-driven craze for re-engineering – including downsizing – in the 1990s. (As Peter Drucker, the father of modern management once said, the media only use the word "guru" because "charlatan" does not fit into the headline.)

As the age of the machine "screeches to a halt," argues futurist Alvin Toffler, and is replaced by an era when the quality of information becomes paramount, this idea looks like it could run for a long time.

Systems thinking seems to fit in somewhere around here.

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