

TOYOTA'S IDEA FACTORY



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"Ideas Are Free"

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WHY ORGANIZATIONS NEVER RUN OUT OF IMPROVEMENT OPPORTUNITIES

Two questions managers often ask when they learn how well some companies are doing at getting employee ideas are “Don’t employees ever run out of ideas?” and “Can an organization get so good that there is nothing left to improve?”

If these were real concerns, one company that would have had to deal with them is Toyota. In 1992, Yuzo Yasuda published a book about the company’s idea system, entitled *40 Years, 20 Million Ideas*. (1991 - Out of Print - *ET*) It told how Toyota got more than a million ideas per year from its employees and had been doing so for more than a decade. Around this time, a U.S. Army lieutenant general asked one of us how this could be. To him, it made no sense. Either Toyota was in very bad shape, he asserted—so bad that it needed a million ideas per year to fix its problems—or the whole thing was some kind of charade. Whichever was the case, Toyota’s idea system didn’t seem to be something other companies would want to emulate. It was a thoughtful comment from someone with considerable leadership experience. But it also exposed a degree of ignorance.

Let us look at the two possible explanations the general proposed. First, Toyota is hardly a screwed-up organization. In fact, it is one of the most successful automakers, and one of the most admired companies, in the world. And as for the idea system being some kind of charade, it is instead absolutely *central* to Toyota’s management philosophy. Toyota has long been a relentless improver. As Yasuda’s book pointed out, ever since 1951, a top executive—including several future CEOs and chairmen, and even members of the founding Toyoda family—has headed the company’s idea system. What is more, many members of its board of directors have been personally involved in idea system activities. Few companies have ever matched this level of top management commitment to listening to employee suggestions. A significant percentage of the company’s overall improvement comes from its idea system.

As for the quantity of ideas being a sign of a company with an inordinate number of problems, perhaps the general would be correct if the world never changed. Sooner or later, Toyota might get everything right and employees would run out of ideas. But everything changes, and changes constantly: technologies, competitors, customers, suppliers, employees, the economy, the overall business environment—*everything*. To stay competitive, a company has to respond. And since an organization is a living, interconnected, and integrated system, an action taken in one place influences things elsewhere. In other words, change creates the need for further change. New problems and opportunities are born all the time. There will never be a shortage of them, and the faster an organization can spot and act on them, the more successful it will be. A shortage of them, and the faster an organization can spot and act on them, the more successful it will be.

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Take what happens at Toyota, for example, a company with a long-standing active idea system. During the 1973 oil crisis, Japan’s economy was hit severely, because the country imported almost all its oil. In less than a year, wholesale prices rose 31 percent, and consumer prices 25 percent. The automotive industry found itself in serious trouble. Gasoline prices went up by 60 percent, and the cost of some of its major raw materials rose by as much as 50 percent. Automakers were forced to raise the price of their vehicles substantially. At Toyota, sales plummeted by 37 percent.⁵ Many companies faced with such a crisis would have laid people off without hesitation. Instead, Toyota asked its employees for all the cost-cutting ideas they could think of that did not require major investment. The response was immediate. Prior to the crisis, employees had been averaging two or three ideas per person per year. In 1973 this jumped to *twelve* per person—a total of 247,000 ideas corporate-wide—and it is worth noting that the call for ideas didn’t go out until *October*, when the crisis began. Since 1950, Toyota has not laid a single employee off, worldwide.

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Ideally, the suggesters themselves should make as many decisions as possible about their own ideas. At Dana Corporation (*another company mentioned in the book - ET*), it is corporate policy that every employee is the company’s top expert in the twenty-five square feet he or she works in have the authority to spend up to \$50 on an improvement without the approval of management. Toyota also emphasize action rather than ideas. They don’t expect most ideas to be reported to the formal system until *after* they are implemented.

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IDEA ACTIVATORS

One of the pioneers of the modern idea system was Toyota. In the early 1950s, the company initiated a long-term drive for performance improvement, with the goal of just-in-time production. As inventory was reduced and processes were linked more tightly, smaller and smaller problems seriously disrupted production. The company was forced to pay extraordinary attention to detail, and managers alone simply couldn’t spot every tiny problem. The company had to ask its front-line employees for help and eventually developed a very active idea system.

Over time, Toyota introduced training programs to help employees come up with many more ideas. Instead of showing people how to do specific tasks, these programs showed them how to improve key drivers of performance, such as quality, productivity, and safety. We have come to call such training programs *idea activators*, because their purpose is to spark more and better ideas by giving people a deeper understanding of their work. Some of Toyota’s activators are as follows:

“Poka-yoke,” or error-proofing. A *poka-yoke* is a simple way to ensure that a certain kind of mistake—one that people are prone to making repeatedly—can no longer happen. It is an empowering and easy-to-learn method that helps people come up with a great many ideas.

“5S,” or rigorous housekeeping. A good 5S training program sensitizes people to all kinds of ways they can become more productive. The five S’s are *seiri* (putting things in order); *seiton* (arranging things efficiently), *seiso* (preventing problems by keeping things clean); *seiketsu* (doing after-work maintenance and cleanup), and *shitsuke* (showing discipline, following the rules). Anytime it takes people more than a few seconds to find something, they will ask themselves why. Simple concepts—such as air-free and shallow storage schemes, and the importance of using vertical space—make it possible to store things more conveniently, while using less space. A decade after Toyota Kentucky began 5S training, managers there told us that employees were still coming up with thousands of useful 5S ideas each year.

Quick changeover (QCO). The principles behind quick changeover can be taught in several hours and result in employees thinking of all kinds of ideas that they might not otherwise. With enough ideas, the length of time it takes to change machines over from making one part to making another can be reduced from hours to minutes.

Total productive maintenance (TPM). TPM involves a brutal measurement, “overall operational effectiveness,” to highlight problems that most organizations miss. With the advent of TPM, managers accustomed to reporting flattering efficiency levels—above 90 percent, say—find themselves sheepishly reporting overall operational effectiveness levels of maybe 30 to 40 percent. Opportunities for improvement that they had not seen before become quite obvious.

Toyota’s idea activators are well suited to the way it manufactures automobiles. But every organization has different needs and has to develop idea activators appropriate for its own situation. To clarify what we mean, let us look at an example from the health care industry.

The late policy analyst Aaron Wildavsky observed that a *difficulty is only a problem if something can be done about it*. In other words, problems and opportunities remain invisible to people who are unaware of better alternatives, or at least the possibility that these might exist.

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