

The Ten Commandments of Kaikaku

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Editor's Note: Special thanks to Norman Bodek for compiling this list of Hirano's ten commandments, exclusively for Superfactory.

The first commandment is: **"Throw out the traditional concept of manufacturing methods."**

When we open a new plant the layout conforms to the product being built and our current manufacturing practices. We do make slight changes as time progresses but rarely do we make radical changes unless forced to by competition or radical changes in technology, or something like Kaizen Blitz comes along. Mr. Hirano challenges us to continually think about ways to make radical changes before our competition does. Imagine that you are starting over again in business. Dream what kind of future you would like to have and then redo everything around you to conform to this new image.

The second commandment is: **"Think of how the new method will work; not how it won't work."**

Too often people like to play the role of "Devil's advocate." Yes, you can always find fault with a new idea, always, for nothing is perfect and things always change. The challenge is to rise to the occasion and find the best way to do things today and do it - as Shingo would always say, "Do it!"

The 3rd commandment of Kaikaku is: **"Don't accept excuses. Totally deny the status quo."**

The chairman of Toyota, Mr. Okuda said, "Failure to change is a vice - I want everyone at Toyota to change and also to not be an obstacle for someone else who wants to change." He also asked his supervisors and managers to come up with annual change plans. Imagine the above statement coming from the chairman of the originators of lean, actually the best corporation in the world today. It is as if Toyota with 50 billion in cash is still running hard with fear that the competition is going to catch them. Change is really what our jobs are all about and yet we all seem to resist change.

The following is the 4th Commandment: **"Don't seek perfection. A 50% implementation rate is fine as long as it is done on the spot."**

Change for most people is very difficult. Culturally we have been taught to be careful and not make mistakes. At school your grades were lowered when you made a mistake, but ironically we only learn from our mistakes. (Our teaching system needs a Kaikaku – a radical change). The trick is to allow mistakes, to let people learn from their mistakes, to get immediately to the root causes of those mistakes so that they do not occur again and to build in a system that prevents disastrous mistakes from happening. Jidoka which I hope you all are implementing recognizes that mistakes will be made but empowers employees to stop working, to stop their team members from working to attack the cause of the mistake. As I visited Toyota in Japan many times, I saw the line stopped frequently, for only a minute or two, but what wonderful power and respect this gives to the average worker - the power to stop their fellow workers from working. It also tells people that you are serious about continuous improvement and not allowing a defect to be passed onto the customer.

The 5th Commandment of Kaikaku from Hirano is: **"Correct mistakes the moment they are found."**

In the past, too often, mistakes were hidden. Remember what happened to the Roman Legion who reported to Caesar that they lost a battle - the messenger was killed. How often have you reported a mistake to be asked, "Why did you do that?" Instead, what should have been said was, "Great, a mistake is our opportunity to learn? We should treat it like a jewel." Of course, we want to prevent mistakes from happening, some can be very costly. But, in truth we only learn from our mistakes. And a growing organization is continually learning.

The 6th Commandment of Kaikaku from Hirano is: **"Don't spend money on Kaikaku."**

I had been to Toyota many times bringing study groups to Japan. On one trip I went over to Taiichi Ohno and said, "I do appreciate the opportunity to visit Toyota with my groups but every time we come here we always see an old plant with old equipment. Could it be possible to visit one of your newer plants?" Ohno sort of scolded, looked strangely at me and said, "Bodek-san you do not understand the Toyota Production System, the newness of the factory machines has nothing to do with it." I learn the hard way.

Toyota is in Nagoya noted for being the "Scotland," of Japan. They do not spend money foolishly - unwisely. In fact, Toyota would make probably 90% of their own equipment. If necessary, they would buy rubber bands and even hairdryers from the supermarket to put on the production line.

I brought Dr. Shingo to many different American plants and on each visit instead of just learning from this great master the senior managers wanted to show Dr. Shingo how good they were. At McDonald Douglas and Dresser Industries managers there both insisted that Dr. Shingo look at their new machine centers showing off their million dollar equipment that was able to do quick change-overs. Dr. Shingo would just laugh and tell them how foolish they were to have spent so much money when for only a few dollars and a new understanding they could have accomplished that and much more.

As I would walk through Toyota and Toyota subcontractor plants I was always amazed at the lack of sophisticated equipment. While visiting American plants I would see the opposite: new NC Machines, and new machine centers with all kinds of bells and whistles. It might look good, cost a lot of money, but it wouldn't get you any closer to Just-In-Time. Dr. Shingo and Ohno both wanted to see the engineers on the factory floor helping workers make improvements instead of sitting in the offices looking through catalogues for new equipment to buy.

So as Hirano challenges us. "Don't spend money on Kaikaku." First use your ingenuity and harness the talents of all of the workers who we know are filled with unlimited ideas for improvement - rarely ever tapped.

The 7th Commandment of Kaikaku from Hirano is: **"Problems give you a chance to use your brains."**

Over 100 years ago Frederick Taylor and Frank and Lillian Gilbreth's promoted Scientific Management and the Division of Labor reversing the very nature of work. Prior to them workers had great variability at work. People developed and practiced their skills. A carpenter building a chair would pick out the wood, help design the product, cut the wood, carved the wood, polished the wood, nailed it, stained it and might have presented it to the customer. Work was filled with many creative opportunities. But with the Scientific Management – looking for the best way to do things and getting everyone to follow the best way workers now only repeated over and over again the same process day after day. Work became boring and repetitive. People were no

longer fulfilled at work, no longer trusted to use their brains to solve problems. Problem solving became the job of the supervisor and the manager.

Of course, Scientific Management allowed industry to become much more productive and brought great wealth to Henry Ford and others. It enriched our lives at home and gave us "deadly" lives at work. Toyota and other Japanese companies, once again studying early American industry, changed all of that and asked their workers to bring their "brains," to work. They went back and studied Kodak's original suggestion system which was an employee participation system, updated it and received millions of improvement ideas from their workers. They introduced Quality Control Circles and Poka-Yoke and asked workers to form teams and solve problems together. I like to quote SME's article on ArvinMeritor Corporation:

"Lean buying-in also was bolstered by good relations with rank-and-file workers at the plant, as evidenced by the facility's subsequent ability to post impressive gains in employee involvement. In addition to the 40 hr of annual training per employee since 1997, the unit has averaged 21 kaizen ideas submitted per employee since 1997. Annual savings per employee is \$4285, at a cost of \$204 per kaizen employee since 1997. The idea implementation rate is 95%, and safety incidents declined 86% since 1999. Incident rate has fallen 48% since 2002, and the lost-time rate/hrs has dropped 60% since 2002. The plant's successes have earned more than the Shingo award, as it has been recognized as a Ford Q1 supplier, a Ford Full-Service Supplier, and a four-time recipient of the State of Indiana Quality Improvement Award."

The 8th Commandment of Kaikaku from Hirano is: **"Ask 'Why' five times."**

"In the mid-nineteen eighties I took Dr. Shingo to Granville-Phillips a manufacturer of vacuum testing equipment in Boulder, Colorado. Granville-Phillips had brilliant engineers, but they took four months to bring a new product to market (and then the result was 97% defects in final inspection). Dr. Bills, the CEO of Granville-Phillips, asked Dr. Shingo to please look at their manufacturing process to see if he could help them become more efficient. Shingo at first went to where the process originated. We went to watch the design engineers and then we followed a logical progression through the entire manufacturing process. At each stage engineers and managers would present problems to Dr. Shingo and he would carefully think and look and then instead of just giving the answer, he would ask the engineers some very basic questions. He loved to use the Five Whys, asking why five times. Five Whys is a simple but great technique to use to solve problems. It really gets people involved using their brains and challenging the 'status quo.'

The 9th commandment of Kaikaku from Hiroyuki Hirano is: **"Ten person's ideas are better than one person's knowledge."**

This is a "key" to the success of Lean and to fully understand the power that comes from Lean activities - "people working in teams focusing on continuous improvement." In the past, it was always up to the leader to decide, to direct, to inspire others to work. It follows a certain misguided philosophy that since "I am the leader, the boss, I have been successful in the past and I make more money than you, then you should always take my advice and guidance." This might have been somewhat true in the past, but it surely will not last in this highly competitive world. It is an age when we must harness everyone's creative talents.

Recently, I took a six minute video of a process with around a dozen workers working on the line. Each day managers and engineers individually walk out onto the factory floor as if with "binders on" and are unable to see the process as it actually is. It is natural like a "fish not seeing that it is in water." If you want real improvement power you take that video into a meeting room and ask a team of people to look, identify the wastes and come up with recommendations to

eliminate that waste. I have done this around six times in the past month. It is a very powerful exercise. At first, most people are reluctant to say anything but once someone, "brakes the ice," and speaks and an immediate interaction takes place and dozens of new ideas come out to identify the wastes and then fresh ideas are offered to eliminate the wastes.

The 10th Commandment of Kaikaku from Hiroyuki Hirano is: "**Kaikaku knows no limits.**"

The universe is an unending creative evolution. Imagine going back a few thousand years; could you have envisioned computers, automobiles, jet-engines, satellites, television, telephones, and getting stuck in traffic for three hours? Just get your fellow employees together and envision what we all would need to have a more secure, happier, healthier and creative existence. Sit there and ask and listen and dream and challenge and build and create and watch the amazing future come upon you.

Hirano's commandments come from a new book to be published next year. If you liked the ideas, you also might like to read Norman Bodek's new book *Kaikaku: The Power and Magic of Lean*.