GEMBA KAIZEN, THE MANAGEMENT APPROACH FOR
COMPETITIVE SUCCESS WHILST PROTECTING THE
ENVIRONMENT

Masaaki Imai

Chairman - Cambridge Corporation
President - Kaizen Institute

KAIZEN

KAIZEN means continuous improvement. The word implies improvement that involves everyone—both managers and workers—and entails relatively little expense. The kaizen philosophy assumes that our way of life—be it our working life, our social life, or our home life—should be the focus of constant improvement efforts. This concept is so natural and obvious to many Japanese that they often do not even realize that they possess it! In my opinion, kaizen has contributed greatly to Japan’s competitive success.

Although kaizen improvements are small and incremental, the kaizen process brings about dramatic results over time. The kaizen concept explains why companies cannot remain static for long in Japan. Western management, meanwhile, worships innovation: major changes in the wake of technological breakthroughs; the latest management concepts or production techniques. Innovation is dramatic, a real attention-getter. Kaizen, on the other hand, is often undramatic and subtle. But innovation is one-shot kaizen ongoing.

Most “uniquely Japanese” management practices, such as TQC or company-wide quality control, quality circles, and our style of labor relations, can be reduced to one word: kaizen. Using the term kaizen in place of such buzzwords as productivity, TQC, ZD (zero defects), JIT (just-in-time), and the suggestion system paints a clearer picture of what has been going on in Japanese industry. Kaizen is an umbrella concept for all these practices. However, I hasten to add that these practices are not necessarily confined to Japanese management, but should rather be regarded as sound principles to be applied by managers everywhere. By following the right steps properly applied, any company, no matter what its nationality, can benefit from kaizen.

Gemba

Gemba is a Japanese word meaning 'real place,' where the real action takes place. In business, gemba is where the value-adding activities to satisfy the customer are carried out. In the manufacturing industry, there are three major activities directly related to earning money: developing, producing and selling products. Without these activities, the company cannot
exist. Therefore, in a broad sense, gemba means the sites of these three major activities.

In a narrower context, however, gemba means the place where the products are made. In Japan, the word is usually used in this narrower context, since it is believed that production sites have been one of the business arenas most neglected by management. Managers seem to write production off as only a secondary means to earn money, and usually place far more emphasis on such sectors as financial management, marketing and sales, and product development. When gemba or production sites do become a focus of management attention, though, they can be turned into a utopia capable of making the company far more successful and profitable.

In the service sectors, gemba is where the customers come into contact with the services offered. In the hotel business, for instance, gemba is everywhere: the lobby, the dining room, guest rooms, the receptionist's desk, check-in counters, and the concierge station.

At banks, tellers are working in gemba, as are loan officers receiving applicants. The same goes for employee's working desks in offices and for telephone operators sitting in front of switchboards. Thus, gemba spans a multitude of offices and administrative functions."

The efforts to bring about cleaner production take place in gemba. Hence a few more lines on gemba will be in order. The problem with most managers is that they prefer their desk as their workplace, wish to distance themselves from the events taking place in gemba. Most managers come in contact with reality only through their daily, weekly or even monthly reports, or other meetings.

In the field of cleaner production, manager’s first priority should be to go to gemba and observe. Gemba is your teacher. When you go to gemba, what you see is the real data. The report from gemba you read sitting at your desk is merely a secondary information.

There is a golden rule of gemba management, called the 5-gemba principles, as follows:

1. **When a trouble (abnormality) happens, go to gemba first.** This is the first, and most important principle. Many managers learn about the problems that happened in gemba from a report that reaches them several days or weeks after. The best solution is to go to gemba at once when you hear that a problem has happened.

2. **Check with gembutsu (machines, tools, rejects, and customer complaints.)** Gembutsu, another Japanese, means some tangible things on which you can put your hands. If a machine is down, the machine itself is gembutsu. If a customer is complaining, the customer is gembutsu.

   For instance, if the machine is down, go to gemba and have a good look at the machine. By looking at the machine, and asking the question “why” several times, you can probably find out the reason for the breakdown on the spot.

3. **Take temporary countermeasures on the spot.** For instance, if the machine is down, you have to get it started because the show must go on. Sometimes you kick the machine to get it started. If a customer is angry, you will need to apologize, or even give some gift to appease. But these are only temporary measures and do not address the real issue,
which leads to the next point.

4. **Find out the root cause.** By repeating the question “why” several times, you can find out the root cause of the problem.

5. **Standardize for prevention of recurrence.** Once you identify the root cause, and come up with a countermeasure, you should standardize such a countermeasure so that the same problem will not recur.

**Gemba KAIZEN**

In order to solve problems found in gemba, today’s managers often try to apply sophisticated tools and technologies to deal with problems that can be solved with a commonsense, low-cost approach. They need to unlearn the habit of trying ever-more sophisticated technologies to solve everyday problems.

There are two approaches to problems solving. The first involves innovation – applying the latest high-cost technology, such as state-of-the art computers and other tools, and investing a great deal of money. The second uses commonsense tools, checklists, and techniques that do not cost much money. This approach is called kaizen. This article will show how kaizen can achieve significant improvement as an essential building block that prepares the company for truly rewarding accomplishments.

**Housekeeping, Muda Elimination, and Standardization**

Everyone in the company must work together to follow three ground rules for practicing kaizen in gemba:

1. Housekeeping,
2. Muda elimination.
3. Standardization.

Housekeeping is an indispensable ingredient of good management. Through good housekeeping, employees acquire and practice self-discipline. Employees without self-disciplines make it difficult to provide products or services of good quality to the customer.

In Japanese, the word muda means waste. Any activity that does not add value is muda. People in gemba either add value or do not add value. This is also true for other resources, such as machines and materials. Muda elimination can be the most cost-effective way to improve productivity and reduce operating costs. Kaizen emphasizes the elimination of muda in gemba rather than the increasing of investment.

The third ground rule of kaizen practices in gemba is standardization. Standards may be defined as the best way to do the job. Products of services are created as a result of a series of processes, certain standard must be maintained at each process in order to assure quality. Standards also can prevent recurrence of the same problem.

As a general rule of thumb, introducing good housekeeping in gemba reduces the failure rate by 50 percent, and standardization further reduces the failure rate by another 50 percent. Yet, many managers elect to introduce statistical process control and control charts in gemba
without making efforts to clean house, eliminate muda, or standardize.

Management (especially Western management) must regain the power of common sense and start applying it in gemba.

In the following, various aspects of muda elimination will be explained.

**Muda of over production** – This is regarded as the worst type of muda. If you produce more than your customer needs, you have extra pieces that need to be taken care of, such as handling and keeping in stock.

**Muda of inventory** – This is the result of over production. If you process only what the next process needs, you can eliminate muda of inventory altogether.

**Muda of waiting** – How often do you see operators just waiting for the material to arrive or the machine to start? No value is added when operators are waiting and looking.

**Muda of motion** – When the operator is moving around, looking for tools or going to get the work pieces, no value is added.

**Muda of transportation** – When materials are moving on the trucks, forklifts, or on the conveyer, no value is added.

**Muda of producing rejects** – Producing rejects leads to rework, or else rejects must be thrown away, a big muda.

**Muda of processing** – By rearranging the working sequence, often you can eliminate a particular process.

The concept of muda elimination is central to kaizen, since eliminating something we have been doing does not cost any money.

If muda of inventories had been practiced, the tragedy at Bopal, India, could have been avoided. Likewise, we often hear of warehouse-full of appliances going into ashes by fire. Again, such a loss could have been avoided if only we were successful in building an ultimate of production system - Just-in-Time (lean) production system, which can be reached after eliminating all sorts of muda. The elimination of muda can be just as effective in service sectors.

There are two contrasting approaches to the problem-solving. One is solving a problem after it has happened. Most of problems we encounter today are of this nature. After a problem has arisen, we make concerted efforts to identify the root cause, solve the problem, and standardize the new procedure for prevention of recurrence. The five gemba principles fall under this category. This approach is called analytical approach. The other category is the one in which we anticipate problems and try to solve them in advance. This approach is called design approach, as it is often employed at the designing stage of a new product or project.

In dealing with such issues as environmental and social problems, the impact of the design
approach will be far greater than the analytical approach. The design approach means, in a nutshell, to improve the quality of planning.

If more careful and insightful considerations are given at the initial stage of planning, many problems can be anticipated and solved with a stroke of a pen. This is a most economical way to solve a problem. Various tools to be used for the designing approach, such as FTA (Failure–free Analysis) and FMEA (Failure Mode and Effect Analysis) have been developed over the years.

As we enter the next millennium, we should be spending more efforts for anticipating and avoiding problems in advance, rather than being busy with fire-fighting in dealing with business-related problems as well as social, governmental, and environmental problems as well.