**Kaizen**

**Kaizen is...**

## a system of continuous improvement in quality, technology, processes, company culture, productivity, safety and leadership.

**What is Kaizen?**

Kaizen was created in Japan following World War II. The word Kaizen means "continuous improvement". It comes from the Japanese words ("kai") which means "change" or "to correct" and ("zen") which means "good".  
  
Kaizen is a system that involves every employee - from upper management to the cleaning crew. Everyone is encouraged to come up with small improvement suggestions on a regular basis. This is not a once a month or once a year activity. It is continuous. Japanese companies, such as Toyota and Canon, a total of 60 to 70 suggestions per employee per year are written down, shared and implemented.

In most cases these are not ideas for major changes. Kaizen is based on making little changes on a regular basis: always improving productivity, safety and effectiveness while reducing waste.

Suggestions are not limited to a specific area such as production or marketing. Kaizen is based on making changes anywhere that improvements can be made. Western philosophy may be summarized as, "if it ain't broke, don't fix it." The Kaizen philosophy is to "do it better, make it better, improve it even if it isn't broken, because if we don't, we can't compete with those who do."

Kaizen in Japan is a system of improvement that includes both home and business life. Kaizen even includes social activities. It is a concept that is applied in every aspect of a person's life.

In business Kaizen encompasses many of the components of Japanese businesses that have been seen as a part of their success. Quality circles, automation, suggestion systems, just-in-time delivery, Kanban and 5S are all included within the Kaizen system of running a business.

Kaizen involves setting standards and then continually improving those standards. To support the higher standards Kaizen also involves providing the training, materials and supervision that is needed for employees to achieve the higher standards and maintain their ability to meet those standards on an on-going basis.

**Benefits Resulting From Kaizen :**

Kaizen involves every employee in making change--in most cases small, incremental changes. It focuses on identifying problems at their source, solving them at their source, and changing standards to ensure the problem stays solved. It's not unusual for Kaizen to result in 25 to 30 suggestions per employee, per year, and to have over 90% of those implemented.

For example, Toyota is well-known as one of the leaders in using Kaizen. In 1999 at one U.S. plant, 7,000 Toyota employees submitted over 75,000 suggestions, of which 99% were implemented.

These continual small improvements add up to major benefits. They result in improved productivity, improved quality, better safety, faster delivery, lower costs, and greater customer satisfaction. On top of these benefits to the company, employees working in Kaizen-based companies generally find work to be easier and more enjoyable--resulting in higher employee moral and job satisfaction, and lower turn-over.

With every employee looking for ways to make improvements, you can expect results such as:

Kaizen Reduces Waste in areas such as inventory, waiting times, transportation, worker motion, employee skills, over production, excess quality and in processes.

Kaizen Improves space utilization, product quality, use of capital, communications, production capacity and employee retention.

Kaizen Provides immediate results. Instead of focusing on large, capital intensive improvements, Kaizen focuses on creative investments that continually solve large numbers of small problems. Large, capital projects and major changes will still be needed, and Kaizen will also improve the capital projects process, but the real power of Kaizen is in the on-going process of continually making small improvements that improve processes and reduce waste.

**Implementation :**

The Toyota Production System is known for kaizen, where all line personnel are expected to stop their moving production line in case of any abnormality and, along with their supervisor, suggest an improvement to resolve the abnormality which may initiate a kaizen.

The PDCA cyclesThe cycle of kaizen activity can be defined as:

Standardize an operation

Measure the standardized operation (find cycle time and amount of in-process inventory)

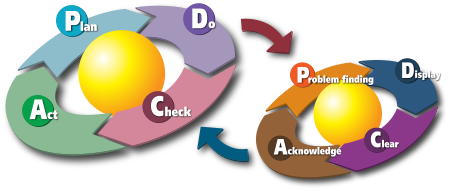
Gauge measurements against requirements

Innovate to meet requirements and increase productivity

Standardize the new, improved operations

Continue cycle ad infinitum

This is also known as the Shewhart cycle, Deming cycle, or PDCA.

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The PDCA cycles

**The five main elements of kaizen :**

1. Teamwork
2. Personal discipline
3. Improved morale
4. Quality circles
5. Suggestions for improvement

**Kaizen – A Necessity for the Industry :**  
Kaizens can be implemented in the industry by improving every aspect of business process in a step by step approach, while gradually developing employee skills through training and increased involvement. The principle are:

1. human resources are the most important company asset
2. process must evolve by gradual improvement rather than radical changes
3. improvement must be based on evaluation of process performance

By practicing Kaizen culture, managers demonstrate commitment to quality. Also, the workers with adequate support from managers become a major source of improvement   
  
Kaizen system is simple,but its implication are far reaching. These can be in the area of Productivity, Quality, Cost, Delivery, Safety & Morale of Employees   
  
ie; PQCDSM.

* Q would mean more accurate
* C would mean cheaper, lesser value
* D would mean lesser cycle time or lead time, faster and more quantity.
* S would mean safer,easier & comfortable working.
* P is a derivative or a combination of any of the above QCDSM.

However,there could be Kaizen, which is implemented primarily to improve productivity. Such a productivity improvement kaizen may also indirectly effect cost and/or quality and/or safety etc.. Hence, the categorisation of a kaizen should be done based on what it was originally intended for and not based on what all could be the eventual spin-off or side benefits

Kaizen would always involve a change in the method of doing. It could be esign change, procedure change etc

**Kaizen vs Large Improvements**  
A kaizen is a small improvement without much data analysis.A problem solved through the method of using six sigma techniques would not qualify as a kaizen for the purpose of compilation .Hence a kaizen done through “dataless”improvements would qualify as a kaizen.

**Types of Kaizens :**  
Primarily two types of kaizens

* Idea Kaizens - These Kaizens have no why-why analysis. If any why-why analysis is done normally it would always reach the same conclusion that “no one thought of it before”. These Kaizens have been done due to an idea created.
* Corrective Action Kaizens - These Kaizens are done to correct a problem and would have a proper why-why analysis.