



"A never-ending journey"

## CONTINUOUS IMPROVEMENT (KAIZEN)

Dr. Ömer Yağız  
Department of Business Administration  
Eastern Mediterranean University

1

"UNLESS YOU CHANGE THE PROCESS,  
WHY WOULD YOU EXPECT THE  
RESULTS TO CHANGE?"

The President of Texas Instruments  
Defense Systems and Electronic Group

2

"IMPROVE CONSTANTLY AND  
FOREVER THE SYSTEM OF  
PRODUCTION AND SERVICE.  
IMPROVEMENT IS NOT A ONE-TIME  
EFFORT. MANAGEMENT IS  
OBLIGATED TO CONTINUALLY LOOK  
FOR WAYS TO REDUCE WASTE AND  
IMPROVE QUALITY."

W. Edwards Deming

3

" KAIZEN STRATEGY IS THE SINGLE  
MOST IMPORTANT CONCEPT IN  
JAPANESE MANAGEMENT--THE KEY  
TO JAPANESE COMPETITIVE  
SUCCESS. KAIZEN MEANS 'ON-  
GOING' IMPROVEMENT INVOLVING  
EVERYONE--TOP MANAGEMENT,  
MANAGERS, AND WORKERS."

Masaaki Imai

4

“THE STARTING POINT FOR IMPROVEMENT IS TO RECOGNIZE THE NEED. THIS COMES FROM RECOGNITION OF A PROBLEM. IF NO PROBLEM IS RECOGNIZED, THERE IS NO RECOGNITION OF THE NEED FOR IMPROVEMENT. COMPLACENCY IS THE ARCH-ENEMY OF KAIZEN. THEREFORE, KAIZEN EMPHASIZES PROBLEM-AWARENESS AND PROVIDES CLUES FOR IDENTIFYING PROBLEMS.”

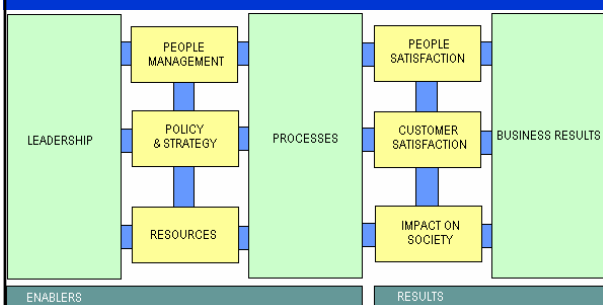
Masaaki Imai 5

## Lecture Plan

- First, we will discuss the subject of Process Management which is an integral part of the TQM system. It is also a major criterion for the EFQM and Baldrige Awards.
- Next, we will take up “Kaizen” or “Continuous Improvement”.

6

## EFQM QUALITY MODEL



7

## PROCESS MANAGEMENT

- What is a process ?  
A sequence of activities that is intended to achieve some result, typically to create added value for a customer.
- Two types of processes:
  - core processes (those that drive the creation of goods and services)
  - support processes (those that are critical to production and delivery)

8

## Process Management contd...

- To apply process management techniques, processes must be
  1. repeatable - process must recur over time
  2. measurable - information can be obtained by measurement

9

## Characteristics of companies that successfully manage their processes

- They control the quality and operational performance of key processes used to produce and deliver products and services.
- They identify significant variations in processes and outputs, determine root causes, make corrections, and verify results.
- They continually improve processes to achieve better quality, cycle time, and overall operational performance.

10

## Characteristics of companies that successfully manage their processes contd...

- They set “stretch goals” and make extensive use of benchmarking and reengineering to achieve breakthrough performance.
  - **Stretch goals** push an organization to think differently. Such radical thinking results in dramatic innovation and significant leaps in performance. Benchmarking and reengineering support innovation.
  - **Benchmarking** is the search for best practices, in any company, in any industry, anywhere in the world.

11

## Characteristics of companies that successfully manage their processes contd...

- **Reengineering** is the radical redesign of business processes to achieve unprecedented improvement in performance (Intel Example -- 91 step procedure --> 8 steps)

12

## What is a stretch goal ?

A **stretch goal** is an ambitious goal. Sometimes it is called a “**breakthrough objective**.” Stretch goals force an organization to think radically different to encourage major improvements, as well as incremental ones. Stretch goals can be set for all areas of the company, including manufacturing, sales, accounting, product design, etc.



13

## MOTOROLA Co. --A famous illustration of stretch goal

“Six Sigma Quality” concept of Motorola:

Motorola set the following stretch goal in 1987.

“Improve product and services quality ten times by 1989, and at least one hundred fold by 1991. Achieve **six sigma capability** by 1992. With a deep sense of urgency, spread dedication to quality to every facet of the corporation, and achieve a culture of continuous improvement to assure total customer satisfaction. There is only one ultimate goal: zero defects--in everything we do.”

14

## MOTOROLA Co. --A famous illustration of stretch goal contd...

Concept of six-sigma quality:

Shrinking process variation (as indicated by 6 sigma) to half of the design tolerance so that only 3.4 parts out of 1 million are defective.

At Motorola, six sigma became part of the common language of all employees. To them it meant “near perfection”, even if some did not understand the statistical details.

15

## CONTINUOUS IMPROVEMENT (KAIZEN)

Kaizen is the name given by the Japanese to continuous improvement. Continuous improvement really means “continuous incremental improvement.”

Kai —————> change

zen —————> good

Kaizen means making changes for the better on a continual, never-ending basis.

16

## Continuous Improvement

- Kaizen refers to improvement of both processes and people.
- In fact Kaizen philosophy aims at improving all aspects of an organization all the time.
- Good is never good enough; kaizen is a never-ending journey to excellence.

17

## Two Elements of Kaizen

- There are two elements that construct KAIZEN, improvement/change for the better and ongoing/continuity. Lacking one of those elements would not be considered KAIZEN. For instance, the expression of "business as usual" contains the element of continuity without improvement. On the other hand, the expression of "breakthrough" contains the element of

18

## Two Elements of Kaizen

For instance, the expression of "business as usual" contains the element of continuity without improvement. On the other hand, the expression of "breakthrough" contains the element of change or improvement without continuity. KAIZEN should contain both elements.

19

## Overview of the concept of Kaizen (Imai)

1. Kaizen value system --- continual improvement of all things, at all levels, all the time, forever.
2. Role of top management --- top management is responsible for establishing Kaizen as the overriding corporate strategy and communicating this commitment to all levels of the organization and allocating the resources necessary for Kaizen to work.

20

### Overview of the concept of Kaizen (Imai) contd...

3. Role of middle management --- responsible for implementing the Kaizen policies established by top management; establishing, maintaining and improving work standards; ensuring that employees receive the training necessary to understand and implement Kaizen, and ensuring that employees learn how to use problem solving and improvement tools.

21

### Overview of the concept of Kaizen (Imai) contd...

4. Role of supervisors --- responsible for applying the Kaizen approach in their functional roles; developing plans for carrying out the Kaizen approach at the functional level; improving communication at the workplace; maintaining morale; providing coaching for teamwork activities; soliciting Kaizen suggestions from employees and making Kaizen suggestions.

22

### Overview of the concept of Kaizen (Imai) contd...

5. Role of employees --- responsible for participating in Kaizen through teamwork activities, making Kaizen suggestions, engaging in continuous self-improvement activities, continually enhancing job skills through education and training, and continually broadening job skills through cross-functional training.

23

### Overview of the concept of Kaizen (Imai) contd...

6. Kaizen and quality --- In a TQM environment quality is defined by customers. Regardless of how customers define quality, it can always be improved and it should be, continually.

24

## KAIZEN

- The following excerpt is taken from the Kaizen Institute website ([www.kaizen-institute.com](http://www.kaizen-institute.com)). It sums up the philosophy and approach of KAIZEN.
  - "Not a day should go without some kind of improvement being made somewhere in the company. When KAIZEN is adapted in organizations and management perspectives, however, it is easier to talk about it than to implement it.

25

## KAIZEN

It is very natural that people will propose some kind of change in their own work place, when they become unsatisfied with their present conditions. Some of the improvements could be carried outright away. Perhaps, the boss won't even notice them. However, when approval is required, several kinds of responses from the boss could have taken place. The ideal situation is that the boss encourages their subordinates to carry out their ideas. The boss then appreciates the efforts or gives recognition. That's what people expect when they propose something. The positive response given by the boss will then develop trust with the subordinates and stimulate other improvements. Cumulatively, this will create momentum for continuing improvement."

26

## The Wet Blanket List

However, life in the organization is not as easy. The boss could ask you a silly question like: "it is not broken, why should we change it" or "the procedure is fine with me, why should we change it?". From your perspective, you know that if you change it, the boss will blame you. The boss just did not want to give you a try, with a lot of reasons and/or no reasons. You could not do anything anymore, "the boss is always right" like the saying goes. There are so many bosses like that. The book KAIZEN talks about the list called "The Wet Blanket List". The bosses should encourage their subordinates, but in a real life, the wet blankets put out the "fire" of improvement suggestions. Here is the list of wet blankets:

27

## THE WET BLANKET LIST

1. I am too busy to study it
2. It's a good idea, but the timing is premature
3. It is not in the budget
4. Theory is different from practice
5. Isn't there something else for you to do ?
6. I think it doesn't match corporate policy
7. It isn't our business; let someone else think about it
8. Are you dissatisfied with your work ?
9. It's not improvement, it's common sense
10. I know the result, even if we don't do it
11. I will not be held accountable for it
12. Can't you think of a better idea ?

28

## THE WET BLANKET LIST

Yes, I heard them from my boss, you may say, however, reflect on yourself before you blame your boss. Your subordinates may also hear them from you frequently. In an inefficient organization, everybody tends to throw wet blankets everywhere. You could also add more wet blankets from your own vocabulary, the list could be endless.

29

## Ten Basic Tips for KAIZEN Activities

“As you know by now, it is not easy to implement the KAIZEN philosophy to where the culture is not solid to adopt it. KAIZEN Institute can help to change the way of thinking of your people and the culture and make a difference. Here is the first advice from us for you to start with, the list of basic tips for KAIZEN to have the first step of KAIZEN implementation.” - KAIZEN INSTITUTE

30

## Basic Tips for Kaizen Activities

1. Discard conventional fixed ideas.
2. Think of how to do it, not why it cannot be done.
3. Do not make excuses. Start by questioning current practices.
4. Do not seek perfection. Do it right away even if for only 50% of target.
5. Correct it right away, if you make a mistake.
6. Do not spend money for KAIZEN, use your wisdom.
7. Wisdom is brought out when faced with hardship.
8. Ask 'WHY?' five times and seek root causes.
9. Seek the wisdom of ten people rather than the knowledge of one.
10. KAIZEN ideas are infinite."

31

## Concept of Gembakaizen

In 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. The word is usually used in this narrower context, since production sites have been one of the business arenas most neglected by management.

32



## Concept of Gembakaizen

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.

33

## Concept of Gembakaizen

In the service industries, 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.

34

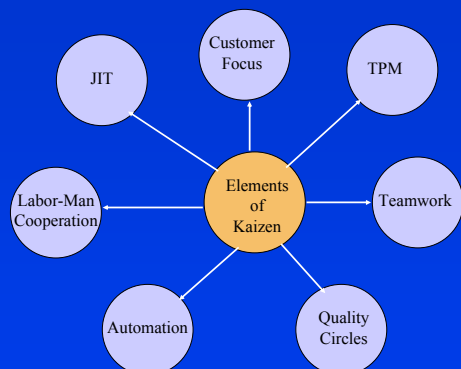
## Concept of Gembakaizen

Now you have a good understanding of the words, KAIZEN and GEMBA.

- GEMBAKAIZEN is KAIZEN activities that take place in GEMBA.
- GEMBAKAIZEN is to make continuous improvement at the real place, where the action is going on, and that can make your organization better. (Source: Kaizen Institute Web Page)

35

## Elements of Kaizen



Goetsch, D. and Davis, S. B. *Introduction to Total Quality*. Second ed. Prentice-Hall, 1997.

36

## Kaizen Checklists

Kaizen is about continual improvement of people, processes, procedures, and any other factors that affect quality. An effective way to identify problems that represent opportunities for improvement is to use a checklist that draws attention to those factors that are most likely in need of improvement. The factors ---next..

37

## Kaizen Checklists contd...

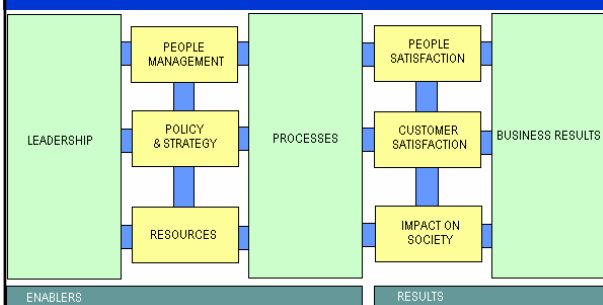
HOW CAN THIS BE IMPROVED?

Factors which may need improvement:

- |                    |                         |
|--------------------|-------------------------|
| 1. personnel       | 9. software             |
| 2. work techniques | 10. tools               |
| 3. work methods    | 11. materials           |
| 4. work procedures | 12. plant layout        |
| 5. time            | 13. production levels   |
| 6. facilities      | 14. inventory           |
| 7. equipment       | 15. paradigms (mindset) |
| 8. systems         |                         |

38

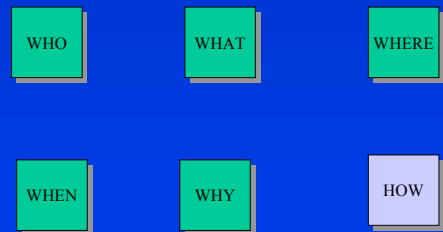
## EFQM QUALITY MODEL



39

## FIVE W's and ONE H

→ Using the five W's and One H encourages employees to look at a process and ask questions.



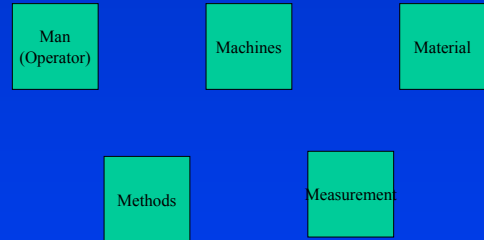
40

### FIVE W's and ONE H contd..

- **Who** --- Who is doing it? Who should be doing it?
- **What** --- What is being done? What should be done?
- **Where** --- Where is it being done ? Where should it be done ?
- **When** --- When is it being done ? When should it be done ?
- **Why** --- Why is it being done ? Why do it that way ?
- **How** --- How is it being done ? How should it be done ?

41

### Five - M Checklist

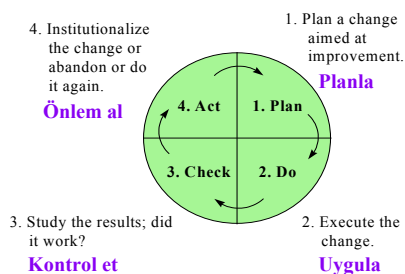


The Five-M Checklist is an approach that focuses attention on the five key factors which are present in any process.

42

### PDCA Cycle (Deming Wheel) PUKÖ DÖNGÜSÜ

#### PDCA Cycle (Deming Wheel)



44