



Masaaki Imai
Founder and Chairman

27th April 2005
Regional Cotton & Textile
Executive Summit
Nairobi, Kenya

www.kaizen.com

Let us light a candle
Instead of
Cursing the Darkness !!

From Macro to Micro !

KAIZEN (Original Definition)



改

= KAI = CHANGE

善

= ZEN = GOOD
(FOR THE BETTER)

改善

= KAIZEN =
CONTINUAL IMPROVEMENT

GEMBA

Gemba - Real place - (in our context Work Place)

Gembutsu - tangible objects found at the Gemba

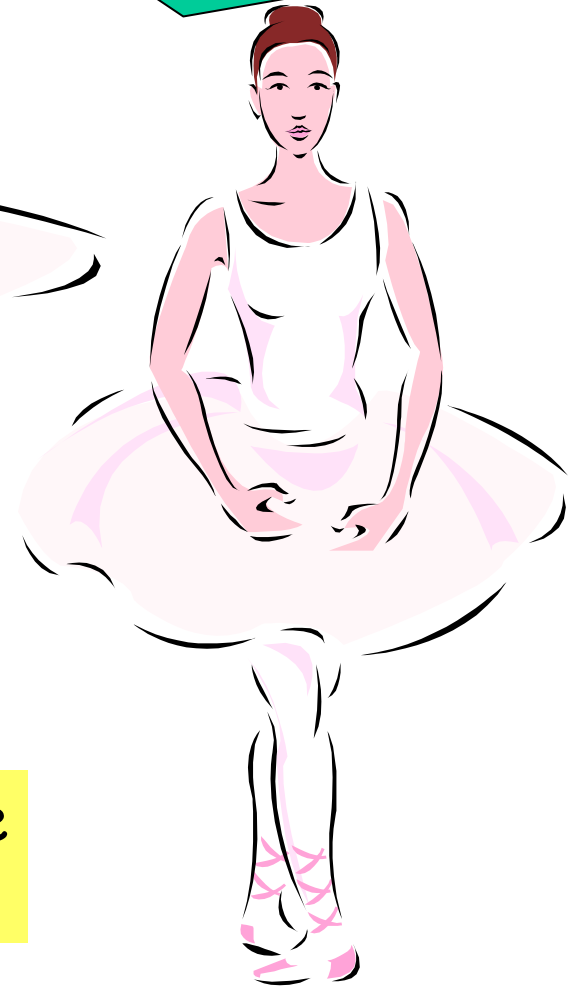
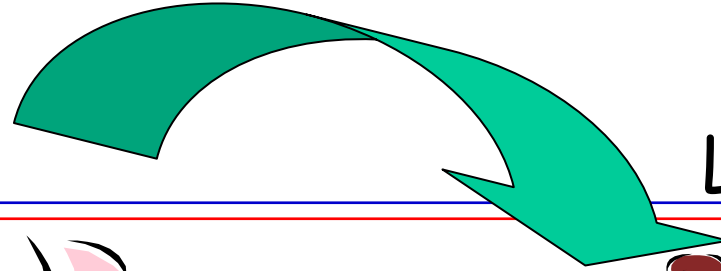
Gemba is where Value Is Added.
(The Managers cabin is not a Gemba !)

KAIZEN® and GEMBAKAIZEN® are registered trade marks of
KAIZEN INSTITUTE -JAPAN

From Fat,



Lean



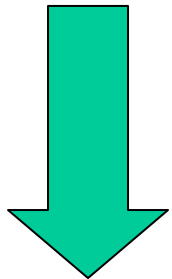
Today's discussion is on how to become
LEAN?

To survive & to survive **well** we need to...



move from

Fat (inefficient, non productive, Waste full methods)



to

Lean (efficient methods that are Zero Waste focused)

Basis of Kaizen



Activity = Useful work + Wasteful work

Activity = Work + Muda

MUDA is Japanese for wasteful work (non value adding work)

KAIZEN attacks **MUDA** first

Expenditure = Cost + Waste

Cost is due to useful work

Waste comes from **MUDA**

Kaizen is a Journey

The Destination is to become a
'Lean Manufacturer'



or to attain the status of

World Class Manufacturing (WCM)

1

Muda
Elimination.
Create
'Flow'

2

Mura
Elimination.
No process
inconsisten
cies

3

Move to 85%
OEE.
Equipment to be
overall effective
(robust)

Three Pillars Of Gemba Kaizen / Lean Mfg / W.C.M

The FAT is called **MUDA !!**

Some typical **MUDA** in Garmenting operations.



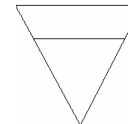
-
- Movement (operator motion adds to C.time)
 - Transport (cutting to sewing to finish, etc)
 - Loading and unloading
 - Searching (for missing pieces!)
 - Counting (at every stage !)
 - Rework (activity which is part of 'normal')
 - Sorting (before wash , after etc)
 - Over production (making more than next operation)

7 types of Muda



1. ***Muda*** of over-production
2. ***Muda*** of waiting
3. ***Muda*** of transport
4. ***Muda*** of processing
5. ***Muda*** of inventory
6. ***Muda*** of motion
7. ***Muda*** of repair/rejects

KAIZEN® and GEMBAKAIZEN® are registered trade marks of
KAIZEN INSTITUTE -JAPAN



Case Studies

LEAN systems implementation
Some results

Benefits (Cellular Mfg in Packing)



	Before	After	% improvement
Productivity Index (pcs/person/day)	2072 pcs / 43 operators / 10.75 hours = 4.5	1800 pcs / 36 operators / 9 hours = 5.6	20%
T.P.T (time from trim to box)	9 hrs	12 mins	97 %
Space for operation	5760 Sq ft	1440	70%
WIP	500	15	97%
Defects	Normally high in batch Prod	Will drop with one Pcs flow	Within finishing should be zero

Benefits (Cellular Mfg in Sewing)

GEMBAKAIZEN™

	Before	After	% improvement
Productivity Index (pcs/person/hr)	2000/164/11 1.1	540/31/9 (for one cell) 2	90%
T.P.T (time from trim to box)	3 days	1 day	66%
Space for operation	1250 Sq Ft	860 Sq Ft	30%
WIP	Very (about 5000 Pcs)	114 (for this cell)	huge !!
Defects	Normally high in batch Prod	Will drop with one Pcs flow	Within finishing should be zero



Note

Kaizen can be applied to pre-production systems
Sampling, merchandizing, marketing, planning ...

Kaizen is about actions
On the shop floor, not just training on theory !!



The best way to manage change is,

To become part of it...not resisting it!

So we welcome all of you to join in!



The garment industry needs to understand:

- What is MUDA ?
- Why do we need to kill it ?
- How to kill MUDA ?
- What will be the benefits ?

Garment Sector Clients

- **Spin Knit Group - KENYA**

At Mauritius:

- **Tropic Knits**
- **Floreal Knitwear**
- **Aquarelle Clothing**
- **Carona**
- **Promintex**
- **Beachwear**
- **Manupan**
- **Lidenwear**
- **Nike – Vietnam**

- **ITC Group – Garments Division, India**



Thank You
jmurthy@kaizen.com