

What is OPEX Really?

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- Most fail so why bother?
- What is OPEX really?
- Think you want to give it a shot?

- Please write down the Top 3 issues at your site
- Define them with a value and unit (e.g., 86% OTD, 30% Employee Turnover)
- Think of the past twelve months. Is the performance trend good or bad?

Focus on these three throughout the presentation & discussion. Ask, ask, ask.

Those that practice true OPEX, win. Typically double digit annual improvements in quality, delivery, and cost performance the first 2 – 5 years

- Customers are elated
- Employees don't leave
- Businesses grow faster
- Costs are lowered

Federal-Mogul facility in LaGrange, GA went from consistent RED to consistent BLACK in two years

Corning Optical Fiber in Wilmington, NC can put their competition out of business whenever they want to

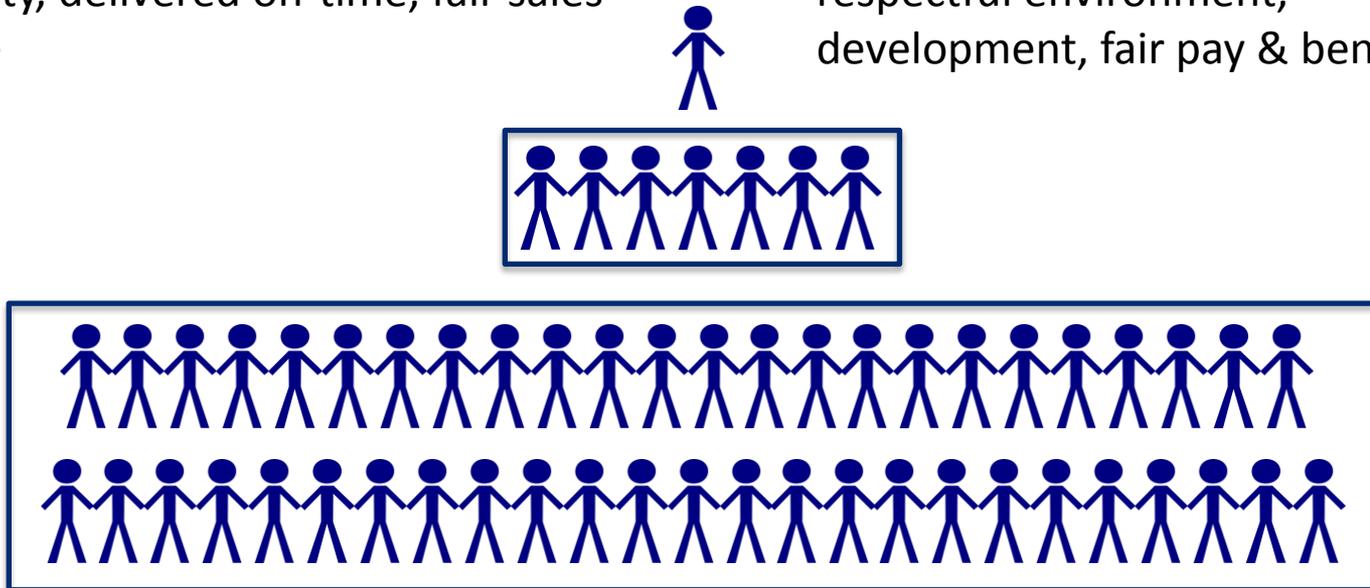
Aldi (1/8th normal grocery store size) is consistently gaining market share. Save 20% and in & out in 1/3rd the time

Customers

- Rule of 7
- Growth comes from happy customers
- Customers are easy: on target quality, delivered on-time, fair sales price

Employees

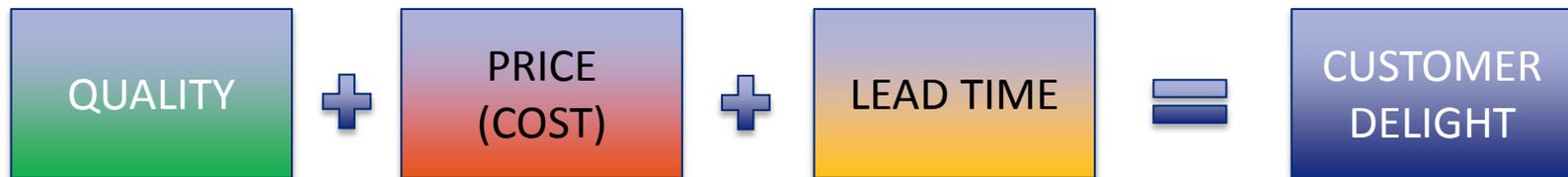
- Rule of 7
- Growth comes from happy employees
- Employees are easy: safe & respectful environment, development, fair pay & benefits



Provide customers:

- *The highest quality parts and services*
- *At the lowest possible cost*
- *In a timely manner with the shortest possible lead time*

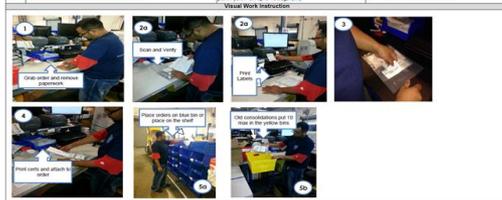
and to achieve these aims while paying the utmost respect to the humanity of the workers who make the system work. The above goals are realized by the total elimination of all WASTES (non-value added) from all processes. The essential means of accomplishing this is Standard Work, the foundation of Operational Excellence.



What is a Standard Work

- A well-defined and documented procedure or instruction that clearly states the **best known way** at the time to perform a process.
- Standard Work is to be managed according to your **Quality Management System**.

Visual Work Instruction										
Consolidation (Open) Work Instruction - Miami		Doc #	Rev	Layout	Rev	Date	Revised W.I.#	Standard W.I.#		
		VWMI-019	NEW			11/05/2013	MW-019	000000		
		AS9100	AS9120				7.5.5	000000		
		Special Process		Quality Process						
Control	Standard	Earth City	Number	Mass	Revision	Part Number	Material	Quantity	Unit	Notes
AS9100	AS9120									
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5



- The employee must be effectively **trained** to the standard work of the process.

3-3-3 Training Method

- Reading the **Standard Work** up to three times
- Observing the **Standard Work** in action up to three times
- Practicing the **Standard Work** with trainer feedback up to three times

3 Problem Conditions

- The Standard Work **does not exist**
- The Standard Work **is not followed**
- The Standard Work **needs to be improved**

Distribution Value Added

- Sale Product or Service, Fill Order, Ship
- **ELIMINATE Non-Value Added** from Value Added Processes



Waste = Non Value Added

TRAVEL
INVENTORY
MOTION
WAITING
OVERPRODUCTION
OVERPROCESSING
DEFACTS
+
OVERBURDEN
IMBALANCE
VARIATION

IS

- Rooted in the Toyota Production System, commonly called Lean
- Operations management philosophy
- For all levels of any organization
- Customer centric
- Employee centric
- Process centric
- For any business, any department, any team

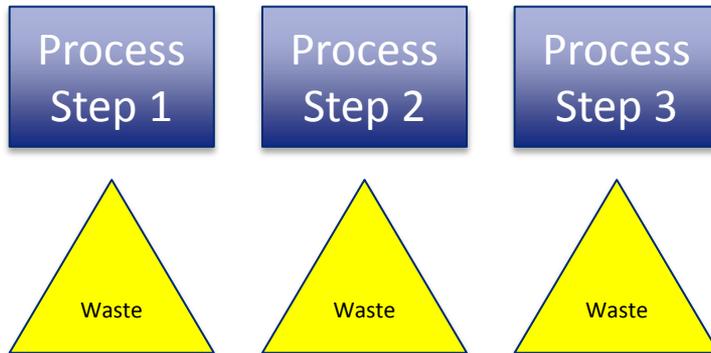
IS NOT

- Just for the warehouse or factory floor
- Just a set of tools like 5S and kanban
- Just for high volume manufacturing
- Another name for TQM

- Make problems obvious
- Focus on the process
- One improvement per department or per team per month
- Use the Simple Value Stream Map method
- Use the 3-in-1 Action Cycle

Simple Value Stream Map

- Choose a process

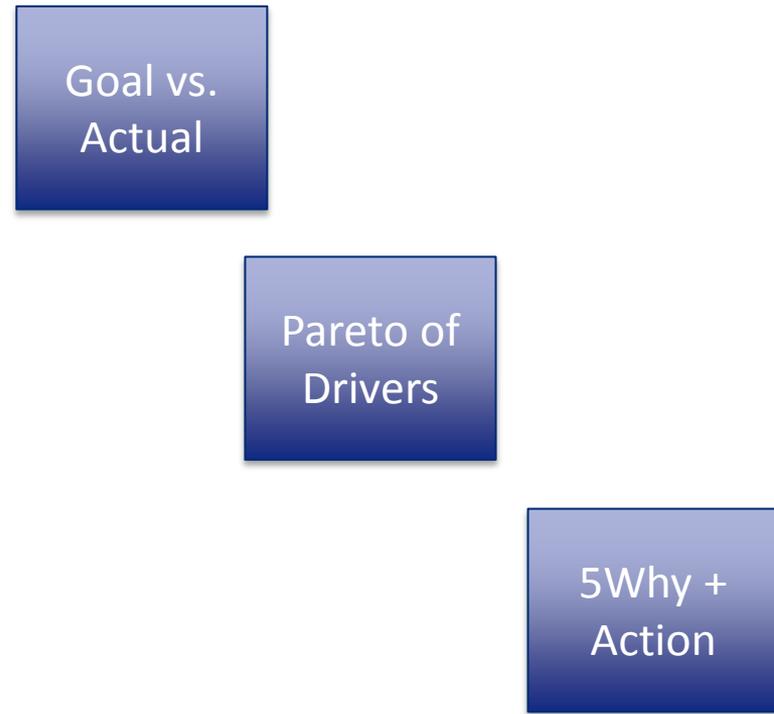


Ideas! Ideas! Ideas!

Implement 1 idea per month!

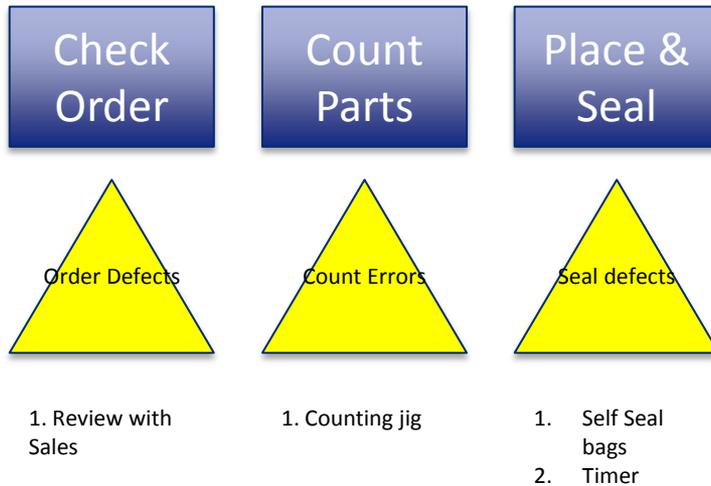
3-in-1 Action Cycle

- Choose a key performance indicator



Simple Value Stream Map

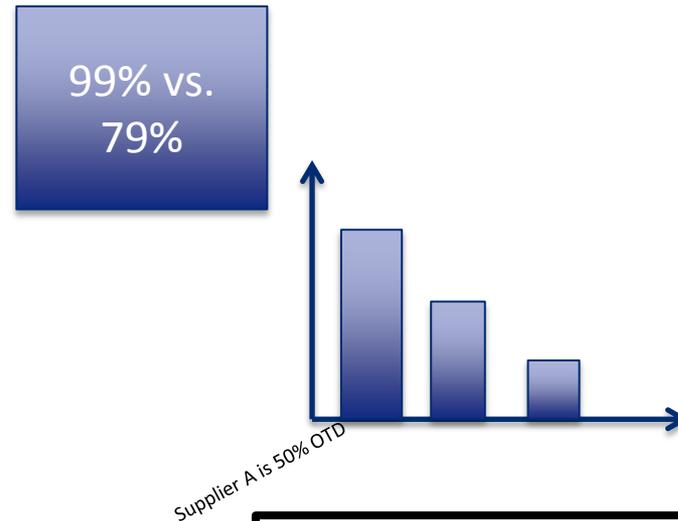
Order Fill



Implement 1 idea per month!

3-in-1 Action Cycle

OTD



Why? Poor quality on punch press
 Why? Frequent machine breakdowns
 Why? No PM schedule

Action: Implement PM schedule on punch press

- Trained in Toyota Production System
- Experienced with kaizen facilitation (transformation in action), X Matrix facilitation (strategic planning and deployment) and A3 facilitation (the scientific method for problem solving)
- Patient but driven
- Results oriented
- Optimistic
- Culturally sensitive



Objective	OpEx Tool
Make targets clear, aligned & connected	X Matrix Catchball + Leader Standard Work
Anticipate problems	A3 Project Deck + Leader Standard Work, FMEA
Risk Assessment	FMEA
Improve Layout	Cellular Layout, U Shape
Organizational Improvement	Value Stream Structure, Co-Location & Value Stream Metrics
Make Problems Obvious	Value Stream Mapping, Visual Management, 5S
Fundamental Improvements	Standard Work, 5S
Key Results Focus & Action	SQDC Board + Leader Standard Work
Increase Warehouse Throughput	Kanban, Reduce batch sizes, SMED, Reduce product travel
Zero Defects	Error Proofing & Detection

- Site Leader learns OPEX
- Site Leader's direct reports learn OPEX
- Must practice and get your elbows dirty – you will be observed
- Then teach
- Simple Value Stream Maps

Focus on the Top 3 Issues from the previous 12 months or VSMs

- Determine the main drivers
- Act upon employee ideas for improvement
- Organize the workspace

Top 3 Issues	Driver	Employee Ideas	Organize Workplace
Electrical Costs	Lights stay on 80% of the time when not needed	Install on/off sensors. Cost is \$2000 but will save \$78,000 per year.	Make it clear where sensors are installed and not installed
Customer Returns	Incorrect shipment quantities	<ul style="list-style-type: none"> - Do double counts - Use jigs when counting - Pre-counted from suppliers in 100s 	<ul style="list-style-type: none"> - Remove unnecessary items from work area - Display customer return performance in work area
Employee Turnover	Pay is 85% of market norm	Offer bonus pay for or 100% OTD and Zero Defects	<ul style="list-style-type: none"> - Clear area of debris and unnecessary items

FAST (2 YEARS)

- Site Leader embraces, practices and teaches OPEX
- Aggressive quality, delivery and cost goals
- Work with a coach

MEDIUM (7 YEARS)

- Non-site leader early adopter embraces, practices and teaches OPEX
- Influential non-site leader embraces, practices and teaches OPEX
- Work with a coach



- Go do 5S on the floor
- No coach

- Lean.org
- Shingo.org
- Fundamental Principles of Lean Manufacturing, Shigeo Shingo
- Lean Thinking, James Womack and Daniel T. Jones

