Thinking Of Sharing As A Noun

- Share: A part of a larger amount that is divided among a number of people, or to which a number of people contribute.

- Using this definition, we identify why many are not getting Toyota Levels of success.
Three Objectives Today

■ My Attempt To Explain Lean Is A System
  □ Integration of People, Lean and Innovation

■ Putting Lean Together To Create Customer Value
  □ Taking your lean tools to the next level

■ Utilization Of Your Model For The Entire Organization
This Is A System Failure
Not A People Failure

Your job as a Lean Leader is to make it easier for Team Members to Succeed than to Fail.
Toyota Chairman, Fujio Cho

“Many good companies try to practice kaizen and use various TPS tools. But what is important is having all the elements together as a system. It must be practiced every day in a very consistent manner - not in spurts - in concrete way on the shop floor.”
The Past And Current Identification With Tools

- Past Very Early
  - JIT/Kanban
  - Quality Circles
  - Problem Solving By Supervisors
  - 5S

- Later
  - Kaizen
  - VSM
  - Standardized Work
  - 5S/Visual Management
The Past And Current Identification With Tools

Current
- Six Sigma
- Kata
- A3 Problem Solving

No Tools Will Lead To A Systematic Approach Nor Will They Lead To “Total Employee Involvement”
Improving

TPS

System Policies

TPM (Rock Support)
- High, Consistent Equipment Availability

Continuous Improvement by All T/M's
Continuous Improvement by Management and Engineers

Cost Quality Safety Morale

Productivity

Continuous Run

All Materials Necessary to Run Any Schedule

Daily Schedule Run by Production Without Plant-wide Communicated Sequence (Prepared Ground Work)

Maximize Equipment Run Time (Repair only after break down)

Inspect and repair
Classifications of Support
Float for Breakdown
Labor Efficiency Measurable
Large I.E. / Mfg.. Engineering
Largest Possible Batch Run
Skilled Trade Response to Work Orders

Labor

Henry Ford Built The World’s Most Effective System
Lean Manufacturing System
You Create Value for the Customer
By Creating Employee Engagement and Identity
Taking your tools to the next level

Learn the various Tools in great detail and apply what works for your organization understanding your lean system
“Brilliant process management is our strategy. We get brilliant results from average people managing brilliant processes. We observe that our competitors often get average (or worse) results from brilliant people managing broken processes.”

Mr. Cho  
Vice Chairman of Toyota
Achieving Lean Leadership

At lowest possible cost

Highest Possible Quality

Corporate Management Team

Financial

Advanced Product Planning

Advances Process R & D

Customer

Customer

Customer

TPS

Product Launch Cycle

(Updated Improved Standards)

Life Cycle Of Product

(Continuous Improvement)
Total Employee Involvement

Scanlon Principle
- Identity
- Competency
- Participation
- Equity

OR

Lean Manufacturing System

Level
Production
Machine
Reliability
Stop the Line

Just-In-Time
Visual Delivery System
Preventative Maintenance
Total Productive Maintenance
Traffic Light System
Mistake Proofing
In-Station-Process-Control

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People System

What’s Improvement:
- Utilizing the intelligence of every employee allows for constant and continuous improvements when coupled with your lean system and tools

Tool Set:
- Participation, Identity, Equity, Competency Training, Team Leader Structure, VSM, Waste Identification, 5S/Visual Management, Hoshin

Departments Responsible:
- Executive Team
- Human Resource
- Every Department In The Organization
Most Important Tools Supporting People Engagement and Development

- Clearly defined competence model
  - with expectations of rapid utilization

- Clearly defined participation models
  - Area Work Teams/Quality Circles/Kaizen
Implement Basic Competency Training and Basic First Steps
At Toyota

- Standardized Work
- Problem Solving 1 and 2
- Waste Identification (Intro to Kaizen)
- Job Instruction Training
- Effective Small Meeting Facilitation

- All with a full expectation of immediate implementation with the Team Members
Participation

“Two reasons appear then for looking toward the fuller involvement of people in their work. We need their help in reaching for market leadership, and the people are entitled to the consideration that recognizes their ability to help. This process of involvement is what we call participation.

- John F. Donnelly, 1967
In-Station-Process-Control (Jidoka)

- What’s Improvements:
  - Utilized to move all quality and cost control to be analysis within the station. Whether machining or assembly signals at the first sight of any abnormality

- Tool Set:
  - Andon, Standardized Work, In-Station-Quality-Checks, TAKT, Team Leader Structure

- Departments Responsible:
  - Manufacturing
  - Manufacturing & Tooling Engineering
  - Product Development
  - Quality Control
  - Human Resource
Most Important Tools Supporting In-Station-Process-Control

- Standardized Work/Job-Instruction-Training Methods
- Andon Communications/Team Leader Structure
- In-Station-Process-Control Check sheets
Organization to Support Continuous Improvement

Team Member

Team Facilitator

Group Leader

★ Critical Missing Link:
- Standardized Work
- Job Instruction Training
- Andon Response
- Daily Preventative Maintenance

- Control of Kanban Systems
- Small team Participation
- Leadership/Problem Solving
- Team Member Assist for Problems
JIT/Level Schedule

- What Improvements:
  - Controls all material in the entire value stream. Must be used to constantly reduce inventory and increase throughput.

- Tool Set:
  - Hijunka scheduling, Batch of one builds capability, Signal Kanban, Instruction Kanban, TAKT time, Material flow routes

- Departments Responsible:
  - Production Control
  - Material
  - Purchasing
  - Supplier Quality
Most Important Tools Supporting JIT/Level Scheduling

- Kanban Visual Control
  - Process Kanban
  - Supplier Kanban
  - Signal Kanban
- Batch Of One Capability (Including Kitting if justified)
- Smallest Possible Batch Sequence Of Manufacturing
Equipment Reliability
Process Stability and
Total Productive Maintenance.

What’s Improvement:
- Without a stable process the system and tools of lean will not yield maximum benefit. This improves uptime and mistake proofing capability

Tool Set:
- Total Productive Maintenance, Mistake Proofing, Machine Capacity Sheets, Machine Work Instructions

Departments Responsible:
- Manufacturing
- Maintenance
- Manufacturing Engineering
- Human Resources
Management’s Role in Lean

- Creating a Lean Enterprise Vision
- Developing a Strategy and Mission
- Providing Resources, Tools and Training
- Creating an Atmosphere that Fosters Participation
- Removing Barriers
- Walking the Talk
Quality, Cost, Productivity, Safety and Morale
What: Standards aimed at continuous improvement through the elimination of waste
Why: Global competitiveness
Tools used: Management by Planning, Visual performance measures

In-Station Process Control
What: Capability to identify, eliminate and prevent defects within station
Why: Lower cost, less rework, customer satisfaction
Tools used: Program Management Process, Standardized Work, In-Process Checks, SPC, Mistake Proofing

Level Production
What: Averaging of quantity and style produced over time
Why: Smoothes output requirements of all upstream processes needed for Just-In-Time
Tools used: Takt time, Cycle time, small batch sizes

Equipment Reliability
What: Up-time, long life, quality output
Why: Increased uptime, meet customer requirements, improve quality
Tools used: Process capacity sheet, Production PM, (TPM) Maintenance PM

Just-In-Time
What: Deliver the right product, at the right time, in the right quantity to the right place
Why: Highlights waste, smaller inventories, customer-focused delivery
Tools used: Kanban, Quick Changeover, Pull System

Work Teams
What: Customer-focused aimed at continuous improvement
Why: Global competitiveness, recognition of expertise
Tools used: All DPS tools to establish standards and solve problems

MANUFACTURING PHILOSOPHIES FOR CONTINUOUS IMPROVEMENT
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