Facilitating lasting change through small step improvements: A complete look at the foundations of Lean IT

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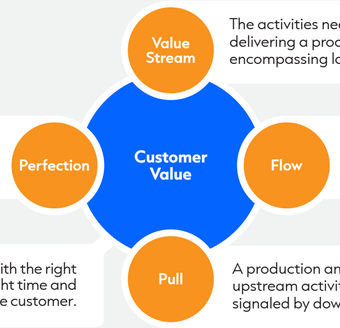
5 Key Elements of Lean



Value Stream — The activities needed for designing, ordering, and delivering a product from concept to customer, encompassing launch, order processing, and material supply.

Perfection — A focus on continuous improvement through uncovering and solving problems.

Flow — Achieving tasks and delivering seamlessly to the customer along the value stream.

Pull — A production and delivery system where upstream activities only produce when signaled by downstream needs.

Providing a customer with the right capability at the right time and price, as specified by the customer.

Problem Solving Tools

The 5 Why's
A question-asking technique used to explore the causeand-effect relationships underlying a particular problem.

Ishikawa (Fishbone)
Causal diagrams that show the causes of a specific event.

CTQ Tree
Used to decompose broad customer requirements into more easily quantified requirements.

Value Stream Map
An instrument to understand waste and improvement potential in a process.

Focuses on the needs, wishes and requirements of the customers and define, analyze and improves customer value

VOC - The Voice Of the Customer
Only the customer defines the value of a service or product

CTQ - Critical To Quality
Property of the product or service that is relevant to the customer

Feedback
Analysis of the Voice Of the Customer

The Kano Model
A technique to determine the relative value of customer wishes

Three Forms of Loss

Muda (Waste)
Any human activity which absorbs resources but creates no value

Lean IT	**DOWNTIME -** Defects, Over production, Waiting, Non-utilized Resources/Talent, Transportation, Inventory, Motion, Excess processing
Lean Manufacturing	**TIM WOOD -** Transportation, Inventory, Motion, Waiting time, Overprocessing, Overproduction, Defects & Rework

Variability
Involume or complexity of customer demand, spread in the outcome of processes

Inflexibility
- Inability of a team to adjust to customer demand
- Skills and knowledge do not match customer demand
- Batch & queue operating model, fixed volumes/specs
- Fixed timing constraints for delivery

Emphasizes time on value-added activities, defines processes and individual/team performance, and implements KPIs for desired results.

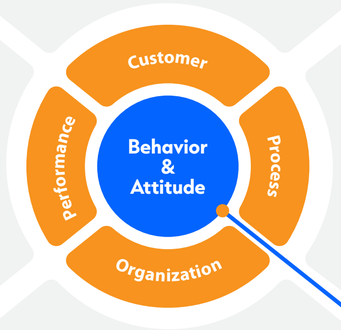
KPI - Key Performance Indicator
Reachable, quantitive objective that is in line with the organization strategy and customer needs

SMART - Specific Measureable Achievable Realistic Time bound A KPI should be SMART and aligned throughout the entire organization

ECA - Earning Capacity Analysis (Earning/Burning)
Measurement of time spent on Value-Add activities vs. Non-Value-Add activities

Time usage
Time is the key production factor in IT

Variability
The goal is to insuring that work is carried out at the correct skill level and that the average level is increased



Analyzes current and future process states, identifies improvement potential, customer value, and reasons behind the process.

VSM - Value Stream Map
An instrument to understand waste and improvement potential

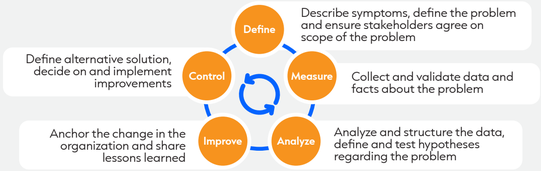
SIPOC - Suppliers, Input, Process, Output & Customer
A high level view of a process to gain agreement on the scope of the VSM

Lead Time
Time between the moment a customer requested something and the moment that it was delivered

Takt Time
Determines the correct pace of the process to ensure that it delivers products to match customer demand

Kaizen as problem solving approach

An approach for solving problems, it forms the basis of continual incremental improvement



Analyzes whether the organization is capable of delivering maximum customer value

Delegate
Empower the frontline employees to operate effectively

Performance Dialogues
Connect management to the day-to-day operation of the team

Day and week start
Covers what each person is doing and looks at how team members can help each other achive more

Visible Management
Three boards make team performance transparent (week, day and improvement)

The Behavior & Attitude Dimension

The key to making Lean successful

Habit!
Sustainable change is implemented by creating a habit

AURRA
Analyze, Unfreeze, Reconfigure, Refreeze, Analyze

Expectation
People's expectations related to the change process in time, as shown in the Valley of Despair, a model that shows the performance decline during a change

Motivation
It's growth depends on: Autonomy, Mastery & Purpose

Change Story
A great way to think and give meaning to new situations is to write your own personal change story

Lean Leadership
Sincere interest in people combined with performance objectives (go see, ask why, show respect)

Defining Moments in the History of Lean

1887 Craft Production

1910 Frederick W Taylor, Scientific Management

1920 Mass Production

1950's Deming Cycle

1955 Toyota Production System

1980's Taiichi Ohno, Continual Improvement

1990's Publication of "Lean Thinking"

2000 Lean in Service

2020 Lean-Agile Way of Working