" Standard & Kaizen " in Lean Thinking.

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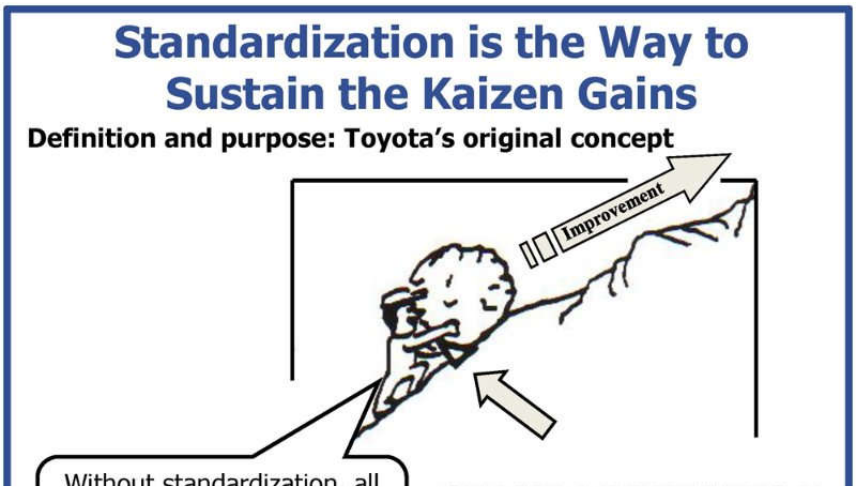
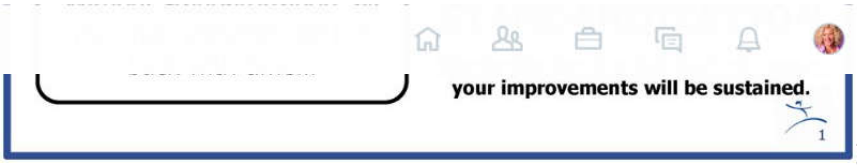
INTRODUCTION

The core idea in Lean or TPS is to maximize Customer Value while minimizing ~~Waste~~. Simply, It means creating more value for customers with fewer resources. A lean organization understands customer value and focuses its key processes to continuously increase it. The ultimate goal is to provide perfect value to the customer through a perfect value creation process that has Zero Waste.

To accomplish this, Lean thinking changes the focus of management from optimizing separate technologies, assets, and vertical departments to *Optimizing the flow of products and services through entire Value streams* that flow horizontally across technologies, assets, and departments to customers.





Eliminating waste along entire value streams, instead of at isolated points, creates processes that need less human effort, less space, less capital, and less time to make products and services at far fewer costs and with much fewer defects, compared with traditional business systems. Companies are able to respond to changing customer desires with high variety, high quality, low cost, and with very fast throughput times. Also, information management becomes much simpler and more accurate. For most manufacturing production operations only 5% of activities actually add value, 35% are necessary non-value adding activities and 60% add no value at all. Eliminating the nonvalue-adding activities (or waste) is th potential source of improvement in corporate performance and custom

Many tools and techniques are available to support the lean philosophy organizations to apply the ideas and implement change. These emanate

of thought (such as the quality movement) and many emerged from the System. Consequently, there now exists an extensive toolkit to help the Examples include 5S (five terms beginning with the letter 'S' utilised t suited for visual control and lean production), Kaizen (a process functi concentrated bursts of breakthrough activities), Value Stream Mapping Deployment (a visual management tool that allows management to sel objectives and to translate these into specific projects that are deployed implementation level).

However, most Lean initiatives 'failed' due to the Mere application of these Tools and Lack of Management commitment & support. Hence the sustainability, Longevity & Effectiveness of Lean comes from understanding & application of 'thinking' - rather than the Tools themselves. Tools serve you with the ammunition; They don't give you the direction or solve your business issues.

Standard Work Process SWP

the current best practice, standardized work forms the baseline for kaizen or continuous improvement. As the standard is improved, the new standard becomes the baseline for further improvements, and so on. Improving standardized work is a never-ending process.

Basically, standardized work consists of three elements:

- Takt time, which is the rate at which products must be made in a process to meet customer demand.
- The precise work sequence in which an operator performs tasks within takt time.
- The standard inventory, including units in machines, required to keep the process operating smoothly.

The benefits of standardized work include documentation of the current process for all shifts, reductions in variability, easier training of new operators, reductions in injuries and strain, and a baseline for improvement activities.

Standardizing the work adds discipline to the culture, an element that is frequently neglected but essential for lean to take root. Standardized work is also a learning tool that supports audits, promotes problem-solving, and involves team members in developing poka-yokes.

Don't confuse *standardized work* with *work standards*. As a practical matter of getting started with standardized work, you have to first *clarify your work standards*. Never confuse work standards with standardized work. Other terminology often used for "work standards" include quality standards, specifications, engineering specifications, or quality specifications.

Work standards are established during product and process development. They comprise the work that must be accomplished for the product to be produced in a way that successfully achieves the design intent of the product or service. Changes in the work standards requires review of the engineering design, so manufacturing companies usually have some kind of "Engineering Change Request" process in place (and, by the way, it's also a process that is often full of problems and waste and a good process to choose for one of your first efforts at business process kaizen). As part of standardized work, Toyota usually calls them out as “Quality Standards.”

Some examples include:

- Assembly - apply xx pounds of torque
- Processing - heat treat at xxx degrees for x hour
- Healthcare - provide xx medication at xx dos
- Coffee - xx seconds for an espresso
- Journalism - a weekly column of xxx words

different process than the typical incremental improvements of standardized work and a suggestion system. Those are work standards.

Toyota-style standardized work for the front-line production operator is a matter of three basic elements: (1) timing, (2) sequence, and (3) a standard amount of stuff that is in process at any given time.

a. The Takt Time & Cycle Time (TT vs. C/T)

- In other words, timing - the timing demanded by the customer and the timing constraints of processing capability

b. Correct & Efficient Sequence (including layout and man-machine combination with process capacity sheets and SW combination table)

- In other words, determining the optimum sequence of producing the product or service – first, do A then B then C

c. Standard in-process materials or W.I.P

- In other words, the amount of in-process "stuff" that is required, no more, no less. That stuff may be material, parts, information.

With those standards established, the operator has the basic elements to make it possible (with training, practice, and support) to complete his or her work successfully. From there, he can easily learn to identify problems. And from there – with proper training and support – she can solve problems and make improvements. With the standardized work in place, now the operator can do PDCA.

Toyota's "Mr. Standardized work," Mr. Isao Kato, has hammered this point for many years: "Before you can begin with standardized work, you must clarify your work standards." Too often, this edict has fallen on deaf or not-ready-to-listen ears. This distinction is fully institutionalized in Toyota production operations, so Toyota operations people hardly even need to concern themselves with it. At your company, you will probably need to do a lot of detailed work to make the distinctions clear and you may need to add "required output" to the list for a fourth basic element.

can be followed, a baseline of comparison for the human doing the work to use to discern normal from abnormal. With that baseline, a foundation for *PDCA* is established, making improvement possible.

Commonization, on the other hand, means simply that a given operation is done the same way everywhere. This is where concern with "best practice" and seeking "one best way" comes in. Toyota refers to it as *yokoten*. For example, an assembly job that entails bolting in a seat belt or the process for communicating a scheduling change in a dentist office – commonization is doing those jobs exactly the same in every location by every worker.

Our aim with standardized work is an establishment of a baseline of operation from which improvement is possible. There are of course many occasions when communication is also desirable. But, the real prize here is when we can get each person to follow his or her own SW so that every time they do the job they do it in the same way, establishing a baseline that can then be observed for correctness, abnormalities easily identified, and improvements readily generated.

As a leader, if you can achieve this in all your operations, you should be very happy. Then, you may wish to also pursue commonization as needed. But, my wager is that once you have each worker engaged in pursuing improvements in his or her own SW, you will find your dissatisfaction that different workers may do similar jobs a little differently to be much less of a concern.

Most Leaders now visualize Lean as "Only 20% Tools & 80% Culture, Mindset & Thinking. Hence in order to develop the Culture & the Mindset ; You will have none or limited success with standardized work unless you also institute some kind of suggestion system or *process* (whether or not labeled formally as a “suggestion system”) that gives individuals doing the standardized work a way to make suggestions in how to improve the work –

AKA *kaizen*. The essence of kaizen comes down to the people who do the work making suggestions on how to improve it. In other words,

- You can't do standardized work without kaizen
- And you can’t do kaizen without standardized work.

Hence standardized Work & Kaizen -- They are two sides of the same coin - if you try to have one without the other, you will encounter one of two types of very serious problems.

Focus on the People - Not merely on Tools.

The reason – Focusing purely on Tools – ‘the What’ in isolation means that you are not addressing the larger factor of creating a Lean Culture – ‘the how’. In fact, culture is about ‘how we do things around here,’ not what we do.

By tackling and embracing Lean Tools, I would argue that you address 20% of Lean – the

belief systems. This takes time, hard work and a lot of tears.

Creating a Lean Culture is about getting everyone to see and embrace Lean; to see waste and remove it; to question everything they do; to act only on fact and not opinion, and work together

Plz remember -- Lean is an on-going journey and NOT a 'quick-fix' for business woes! Although some of the tools and applications will start providing you with immediate reward and benefit that is measurably making a difference.

It is not successful as a project 'here and there' or uncoordinated strategy, shooting from the hip, when we feel like it type of approach. Dedicated time and resources, focused and targeted effort will benefit your Lean initiative tremendously. SHIFT YOUR FOCUS MORE LONG-TERM and step out of the day-to-day fire-fighting and reduced focus we so typically have in our organizations, dealing with one problem at a time, as they come up and not following a very effective strategy overall or at all.

Lean is about more than tools, counter-intuitive thinking, and application to manufacturing and transactional processes! It is about the people involved in, touched by, working with and through these processes and outcomes, to IMPROVE and SUSTAIN business success and growth.

"Use the tools, don't let the tools use you."

Put the toolbox down – until you've thought about which tool you actually need.

Remember ----Lean is a Journey --

Only 20% Tools & 80% Culture, Mindset & Thinking !

"Knowledge is something you buy with the money.

Wisdom is something you acquire by doing it."

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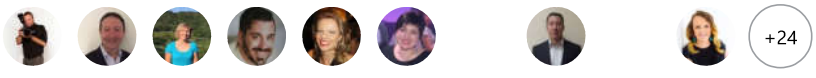

2 Comments

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The part I love the most about this article is the recognition that "Lean is about more than tools, counter-intuitive thinking, and application to manufacturing and transactional processes! It is about the people involved in, touched by, working with and through these processes and outcomes, to IMP ...see more

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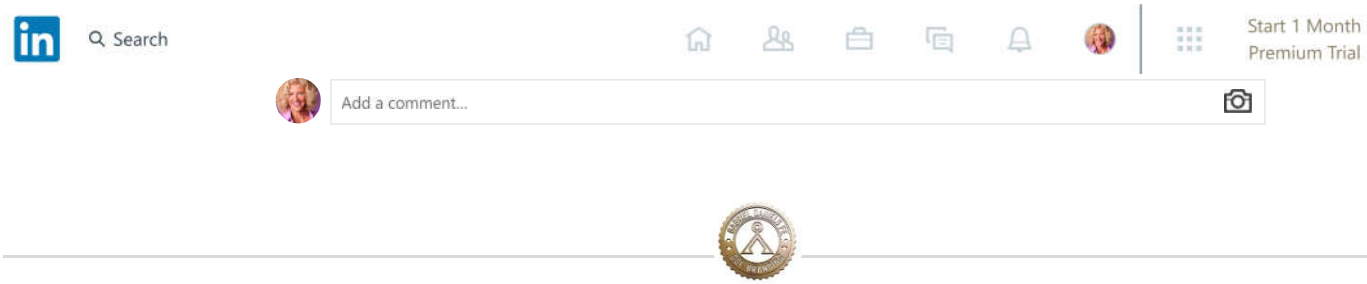
Bryan Clasby 1mo
Head Of Customer Service Transformation at Winc ANZ

A simple well explained read.



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