

THE LEAN MAG



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contents

01

LETTER FROM THE EDITOR

04

THE KEYS TO EFFECTIVE SPONSORS

11

HIDDEN OPPORTUNITIES IN PROCESS MAPPING

16

GENBA VS. BUSINESS IDEOLOGY

20

BEYOND BORDERS: TECHNOLOGY'S IMPACT ON CULTURE AND IDENTITY

25

SUPERCHARGING INNOVATION WITH LEAN

32

DESTROYING THE FORTRESS OF ORGANIZATIONAL SILOS

38

ONE PIECE FLOW

41

SENSEMAKING

46

EMBRACING AI: THE VISTA FRAMEWORK

52

CONNECTING CI TO THE BOTTOM LINE A LEAN ACCOUNTING STORY

letter from the editor

Hi!

In this new edition, the authors take you on a dive into the ever-changing landscape of work, offering valuable insights for anyone, regardless of their role. Whether you're a leader, a problem-solver, a tech wiz, a creative innovator, or a financial expert.

Organizational culture is clearly *a thing*, and the #19 team shares practical behaviors, techniques, and approaches that can streamline business operations, strengthen relationships, and ultimately boost your bottom line.

Enjoy it.

Thank you for being a reader.

A handwritten signature in black ink that reads "Pedro Monteiro". The signature is fluid and cursive, with a long horizontal stroke at the end.

Pedro Monteiro

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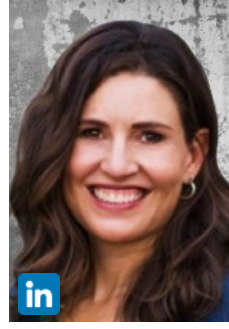
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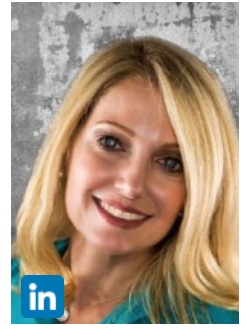
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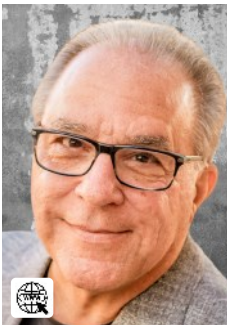
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A heart-shaped padlock and a key are shown on a pink background. The padlock is white with a silver metal shackle and is positioned on the right side of the image. The key is made of brass and is positioned on the left side, partially overlapping the padlock. The title 'THE KEYS TO EFFECTIVE SPONSORS' is written in large, white, sans-serif capital letters across the center of the image.

THE KEYS TO EFFECTIVE SPONSORS

by Jamie Flinchbaugh

Whether a major enterprise-wide transformation or a small improvement project, the role of a sponsor can either help enable success or entirely squash your chances. Getting sponsorship right is not the most important ingredient for success, but it is probably the most misunderstood. Some sponsorship is formalized, with a name in a box on a template, and many other times it is implied, taking some ownership over the work without being directly involved.

Here we explore why it is important, what to do, what not to do, selecting the right sponsor, and how the sponsor interfaces with other critical roles.

Why is it so important?

First, why is it important to write about this topic? The big reasons are that there is very little written about it yet it is frequently a complaint from those trying to get stuff done. A starting assumption is held that as sponsors are often fairly senior leaders, that they must have the experience and perspective to know how to be a good sponsor. The evidence discredits this assumption.

An effective sponsor has many benefits, but perhaps the most important is to avoid rework. There are few wastes as insidious as having to redo the work because of missing information such as criteria or boundary conditions (more

on those later). An effective sponsor avoids this waste ensuring that the team is working inside the right box so their efforts are not wasted or second-guessed.

The positive side of this is that effective sponsorship provides the right empowerment for a team, ensuring that they have what they need to be successful in the pursuit of their goals. An empowered team with a clear set of objectives and well-understood boundary conditions can accomplish amazing results.

The sponsor should also be able to provide insight, perspective, or context unavailable but useful to the team. If a team fails to anticipate, or thinks too narrowly or short-term about the problem, these are failings of the sponsor to provide the needed context.

How does the sponsor engage with other roles?

I'm including this early in the article because the interactions shape the role. Most of the activity performed by a sponsor is in the interactions. Having clearly defined roles within complex and overlapping work is critical.

Team Leader: The Team Leader is the one ultimately accountable for the work and performance of the team. This isn't often a formal role name, instead implied as the Manager or Director responsible for the core work. Part of the sponsor's role is to hold them accountable, but also to give them what is needed. Most difficult topics a sponsor will engage with should be done directly with the Team Leader, allowing that leader to engage

with and drive the team. When needed, the Sponsor grants the Team Leader the authority they need to perform the role.

Facilitator: A facilitator is not always needed, and should be used sparingly. Most work should be achievable with an implied Team Leader and the Team. But when called for, a Facilitator can help guide the process and smooth over the friction points, especially when either the team or the work is very complex. When there is no clearly defined Team Leader, the Facilitator ends up as de facto Team Leader. This is usually a mistake, and will only appear not to be when the Facilitator has superior talent to overcome the gap. The Sponsor and Facilitator should have relatively little interaction, relying instead on the Team Leader, but as the Facilitator will have a different lens to spot problems and barriers, a direct line to the Sponsor can be useful. This is especially true when the Team Leader is being stretched or tested in their role.

Project Manager: A Project Manager also shouldn't be required most of the time. Their role overlaps quite a bit with both the Team Leader and Facilitator, and so it is fairly rare that you would need all three. When you have all three, the Project Manager should have little to no interaction with the Sponsor, but if there is no Facilitator, they may again have insights around progress or barriers that can be fed directly to the Sponsor.

Team Members: If the Sponsor and Team Leader are well aligned, the Team Members require little interaction with the Sponsor other than key moments along the work. The

“Sponsorship
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we're in
charge.

encouragement, and providing confidence to the team that they are, in fact, empowered to go forward. Micromanagement of the team itself should be avoided, as this turns the Sponsor into the Team Leader.

Stakeholders: This is the often unsung value add where a good Sponsor makes a big difference. This work happens outside of the room (whether literal or figurative), and is often invisible to the team itself. First, the Stakeholders such as internal customers or suppliers, or simply those who care a lot about the outcome of the work, must be kept informed. While the Team Leader may take on much of this work, the Sponsor can ensure that it is getting through and understood. Second, they must work to ensure that alignment is built, but also maintained. Interests and perspectives can shift, and while that doesn't mean the work shouldn't shift with it, the Sponsor must maintain ownership over that alignment. Finally, ensuring that Stakeholders don't interfere directly with the team imposing their own interests, ideas, or constraints is essential.

The role of the Sponsor can often be compared to a sporting Referee, whereas the best outcome is to remain invisible, and to express good judgment about when and how to intervene.

Selecting the right sponsor

Most teams do not get to select their own Sponsor, so this guidance affects both Sponsors trying to decide as well as to teams trying to find the right one.

First, don't just assume that the "boss" is automatically the sponsor. This may be empirically the most frequent answer, but fails as an automatic heuristic. The failure modes happen later, and so it is worth taking a few moments up front to be thoughtful about this important decision. What follows are other factors to consider.

Who can provide clarifying direction and input? Ultimately helping shape the work is massively important. Those clarifying insights can be based on a previous role they had even at another company. For example, if you're going through a major ERP transformation, it affects everyone. But perhaps a divisional President had been through it 18 months earlier at their previous company, and would be really useful to this project.

Who will really care if you are successful? Or, who is the customer of the work, or the change? Much work that is cross-functional has people who are making the improvement, and others who benefit. If you are transforming your internal financial reporting tools, it is people in P&L decision roles who may benefit the most, and therefore may make a really useful sponsor. If you're transforming your talent development process, a senior leader that has a great need to upskill their team may have a great interest. If these individuals aren't the Sponsor, then they are at least a Stakeholder. But sometimes that leaves the Sponsor more as an arbiter rather than guide. It can be very clarifying to get direct engagement with the

end user of the work.

Another mistake is going as high as possible in the organization for a sponsor. Every outside firm trying to do transforming work in the organization asks for an audience with the CEO. Certainly a CEO as sponsor can remove barriers and make decisions, but you are also competing for attention span with everything else on their plate. So, attention share is the first thing to consider. If the Sponsor can go a week without the work even crossing their mind, they are not likely the right person.

Instead, go as low as possible. "As possible" is the key phrase here. You want them closer to the work so that they at least have familiarity with the work, the constraints within the work, what good looks like, etc. However, they also have to have decision rights for the scope involved. Whether those decision rights are formalized, or informally achieved through power, influence, or credibility, you do need your sponsor to be able to make a decision when one is required.

How can sponsors fail?

While some failure modes are implied in the guidance already provided, here we highlight common failures.

First, it is easy to assume that if one sponsor is good, having many co-sponsors will be better. However most of the time this is false. Every co-sponsor can be in favor of success, but none of them are accountable for failure. When things go awry, you need to know who to go to and not find everyone avoiding eye contact.

Second, don't be unavailable. Remember that the team's work depends on getting what they need from the Sponsor in a timely manner. The Team Leader shouldn't need to get on your busy calendar "in a couple weeks" to get answers. If they call, you answer.

Third, sponsors don't generate the solution. That's the job of the team. Yes, we all love it when our idea is chosen. That is ego over success. If you really have a clear picture of the solution however, don't delegate it to a team. I can't tell you how many sponsors and coaches of work that I meet that are frustrated that a team isn't developing the solution that they already knew they wanted. They never should have delegated a problem that they really wanted to own themselves.

Fourth, don't manage the work. You are not the Team Leader, the Facilitator, or the Project Manager. If you want to be the Team Leader, then be Team Leader and not the Sponsor.

And fifth, do not misread your implied power. Far too often, when someone is named a Sponsor, they assume this gives them (in the voice of Star Wars' Emperor Palpatine) "absolute power." This often shows up by not staying engaged with and building alignment with other Stakeholders.

How does the Sponsor perform their role?

Beyond what we've already defined what a sponsor does, and shouldn't do, we can describe the role based on two perspectives: setting up the journey, and helping the team avoid getting lost along the journey. The first

part is done in advance and is fundamentally the most important part of the sponsor's role. There are four primary elements of defining the journey.

First, you have to help define the problem well. This is often pushed through too quickly, but as John Dewey pointed out, "a problem well put is half solved." If you are going to spin up a team to do real, collaborative, and hard work, it seems the least we can do for them is to ensure they are working on a problem clearly defined and aligned with all the stakeholders.

Part of defining the problem, in this case, is also establishing the priority or importance of the problem. Is this the kind of problem where we should all clear our schedules, or just work on it when we can find the time? Allowing teams to struggle to place this relative to their other work is a disservice, especially when those on the team have different opinions about the problem's priority.

Second, you must define the end of the journey. What are the conditions of satisfaction? What must be true for the project to be considered successful? This can include both conditions around the solution and around the journey. For example, success may involve bringing another team along for the ride would be a process condition.

Outcome conditions may include how much could be spent or when the project must be completed by. One of the most frequent failures of sponsors is when they aren't happy at the end of the project, mostly because they insert new conditions not previously revealed.

Third, defining the boundary conditions, or

guard rails, for the journey is also often missed. This includes defining what should be avoided, and what should be included.

Making clear what must be avoided helps prevent reworking solutions. Examples include not changing the software system, or not spending more than \$X, or not creating a new SKU to solve the problem. This requires a little anticipation and intuition about where the team may tread where they shouldn't.

Ensuring aspects that should be in-scope requires even more anticipation and intuition. Almost all teams put up false walls around what they can do. These are often based on past experiences and being told no. I remember an organization that firmly believed that one core dimension of product development was not to be touched by the direction of the owners. We checked, and that assumption was plain false. We jumped in and simplified product complexity by a massive measure. People do not want to find out where the boundaries are by accidentally exceeding them, so the safe thing to do is put themselves into a box that's smaller than intended. As a sponsor, if you can open up that box even a little, you are doing the team a great service.

The fourth role before getting underway is selecting the right team. There are a lot of factors to consider, but no formulas. Keep the team as small as possible, but no smaller. Small teams can function better, but you must include the right people based on the roles they represent, the knowledge or experience they bring, the skills they contribute, and team chemistry. You should

also consider the learning opportunity that is provided to others, whether you are exposing them to the nature of the work, or the context of the project itself.

The sponsor may not actually do the work to assemble the team, but may delegate most of that to the Team Leader. However, this should not be fully delegated, and at least reviewed and adjusted as needed by the Sponsor. This helps avoid blind spots and misses that makes the work harder down the road.

During the work, the Sponsor also performs two primary roles. First, they must be available to the team to remove roadblocks to maintain momentum. These roadblocks can be as small as not having an adequate space to work in, or as major as not having access to a key part of the organization needed for collaboration.

The second role is to recognize when a change needs to be made and to intervene. This can be an adjustment to any of the factors listed above, such as changing a boundary condition or changing the team members. The Sponsor must be listening with the intention of not interfering, until avoiding interference is the greater risk.

Sponsorship is not a role we get to do however we want just because we're in charge. The inconsistency that this mindset can introduce will lead to confusion, frustration, and bad outcomes. Resources, especially those with talent and commitment, are hard enough to come by. They deserve the very best efforts from those sponsoring their work. ■



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HIDDEN OPPORTUNITIES IN PROCESS MAPPING

by Lauren Hisey

In today's fast-paced world, organizations relentlessly pursue operational excellence, which has caused them to head straight to solutions, especially using technology as the solution, without truly understanding the business issues, the actual current state, and the real problems causing the true pain. They move right pass all of this and bypass one of the critical tools and steps: **process mapping**. But what happens when we bypass this critical step? Allow me to share a story.

The Story of Automation Go Wrong

An organization within the financial industry

was running into resource issues. The organization was supposed to have a staff of 150 but was only staff of 75 due to hiring issues. The organization's productivity was down by 30%, and its Efficiency was down by 40% compared to last year. Incoming work coming into the organization was up by 20%. The leaders and managers of the organization knew they needed a fast fix. They made a hasty decision that automation would be the answer.

After implementing automation into the process, they soon realized that it did not provide relief. In fact, automation has made things worse. . It was so bad that their

employees started to go around the automation because it was more cumbersome to use the process with the automation. While the automation seemed to “speed” things up, the reality was that they could see just how bad the process was.

The leaders and managers realized they didn’t solve anything because they did not truly understand the process and the underlying problems. They soon decided they needed help and that one way to start was to map out the process.

They started with a SIPOC (Suppliers, Inputs, Process, Output, Customer) high-level map to understand the starting and stopping points of the process that they wanted to improve. Then, the Team created a detail process map and input map to dive deep into the process to ensure they understand what was happening in the current state. During this exercise, they could see the process’s Lean Waste and non-value steps. They immediately realized they needed to make process improvements before implementing any technology. They find out that the automation only shows how bad the process is. Once standardized, they applied the right technology in the right places. They realized it was not the right idea to throw technology at the problem without knowing the root causes and what was causing the most pain.

They were also to gain buy-in from all the employees because they conducted the

exercise with those who did the process. They made decisions together. The senior leaders, through the rest of the company, realized that they needed to go to Gemba – got to where the process was happening – to do process mapping exercises. With the findings, the company decided to roll out Lean and Lean Six Sigma throughout the organization.

Understanding Process Mapping

What Is Process Mapping?

Process mapping transcends mere flowcharts. It’s the visual embodiment of a workflow—a canvas where each step, decision point, and interaction finds expression. Beyond shapes and arrows, it reveals the heartbeat of the organization. It is where the people are doing the work. It shows us what is happening with the Current State, the “as-is” process versus the perceived process. Most people are so engrained in their day-to-day jobs that it is hard to conceptualize how the process works. It is also hard for people to move away from their silos and to even understand the journey of the customer, regardless if they are internal or external. While many think that the current process is operating just fine, once you start to draw the process out and add measurements such as cycle time, defects, and inefficiencies, many are amazed at how incapable the process is. Then, when you measure what your customer truly desires or benchmark against your competitors, it starts to paint a different picture than what was initially thought.

Current State Value Stream Maps and detailed process maps also reflect how badly the technology is put together without a holistic approach to understanding the process. These maps often show that technology might have been injected into the wrong part of the process or is not used in the most efficient manner.

Through these exercises, you start to open the minds and eyes of the people in the process. People are so passionate about their jobs that they often forget about the customer. As Lean Six Sigma practitioners, we usually guide the people in the process through exercise. Many who designed the process in the past do not realize that processing mapping needs to be done to increase customer satisfaction. People can only operate at what a process is capable of doing. Sometimes, it takes stepping back and doing the mapping exercise that change needs to happen because there are always better ways to do things at the end of the day. It is about continuously improving to improve employees' lives and increase customer satisfaction through throughput and efficiencies.

Why Process Mapping Matters

If we take a minute to stop and see why the process mapping matters, we can genuinely start to paint a more holistic picture. It would help if you saw things from end to end with the internal and external customer's perspective to see the following:

“Process-
mapping begins
with
understanding
the current
state—exploring
uncharted
territory.”

1. Identifying Bottlenecks

Process maps spotlight where processes falter or bottleneck. These bottlenecks hinder Efficiency and impact overall performance. By pinpointing them, organizations channel improvement efforts strategically. Bottlenecks can occur as rework loops, bad technology, manual work, too many approvals, defects, etc. Just think of any Lean Waste, and you can identify a bottleneck.

2. Improving Communication

Imagine a team conversing in different dialects—a Tower of Babel scenario. Process mapping establishes a universal language—a visual lexicon—bridging gaps across departments. Whether you're in operations, IT, or customer service, process maps harmonize Communication. It is about moving away from the silos and blaming to becoming partners working with on common goal to help improve the customer experience. Better Communication leads to transparency that removes the blocks and issues that are often seen within silos.

3. Enhancing Efficiency

Redundancies and superfluous steps lurk in every process. Process mapping exposes them. When the entire flow unfolds before our eyes, we can eliminate Lean waste, streamline activities, and optimize resource utilization. It doesn't just happen in manufacturing; you can also see this unfold within transactional environments. Increased Efficiency allows for more creativity among employees. It will enable them to become even more passionate about their work and develop even more ways to become efficient.

4. Facilitating Training

New team members often grapple with complex processes. Process maps serve as navigational aids, helping them grasp the big picture. It's akin to handing them a treasure map—the path becomes more apparent. Creating simple and streamlined processes

allows everyone at all levels to see how things work. It creates an environment for learning at the core of continuous improvement.

Process Mapping in Lean Six Sigma

A Perfect Match

Process mapping seamlessly aligns with Lean Six Sigma principles; it is correct at the core of everything done within the discipline, regardless of your methodology.

1. DMAIC Framework

During the Define-Measure-Analyze-Improve-Control (DMAIC) journey, process mapping shines in throughout the entire problem-solving journey from Define with the start of the SIPOC to the Measure Phase diving into the detail to the Analyze phase, where things are dissected to identify the pain points, and then into the Improve Phase to pave the way for improvement. You end with control of the future state to sustain the goals and a control plan to help establish continuous improvement.

2. Root Cause Analysis:

Process maps lead us to the core of problems. Armed with data, we trace issues back to their origins. No more treating symptoms; let's address the root causes. It uses data and process maps to see what is causing the most pain.

The Journey from Current State to Solutioning

Uncovering the Unknowns

Process mapping begins with understanding the current state—exploring uncharted territory. As we map out the process, we unearth:

- **Non-Value-Added Steps (NVA):** These activities contribute little to the result. Process maps spotlight them, urging us to eliminate or optimize them.
- **Lean Waste:** Waste hides in plain sight, such as waiting times, excess inventory, and unnecessary movement. Process mapping exposes these inefficiencies.

After uncovering the NVA and Lean Waste, you can develop and brainstorm ways to eliminate them. While you may never get rid of it all, you can genuinely remove much of it. You move from a push system to a pull system.

Real Problems, Real Solutions

From the current state, we transition to solution brainstorming. Armed with process maps, we tackle genuine problems. It's not guesswork; it's data-driven problem-solving.

1. Brainstorming Sessions:

Gathering the Team around the process map starts to open the discussion around the pain points, bottlenecks, and areas for improvement. Encourage diverse perspectives—sometimes, the best solutions emerge from unexpected sources.

2. Kaizen Events

Inspired by continuous improvement practices in Japan, organize kaizen events. These focused workshops bring stakeholders together to dissect processes, identify waste, and propose solutions. Process maps serve as the canvas for these collaborative sessions.

3. Root Cause Analysis:

Process maps lead us to the core issues. Dive deep into root cause analysis. Ask "why" repeatedly (the 5 Whys technique) until you reach the underlying cause. Then, address it systematically.

Future State Mapping: Once you've dissected the current state, envision the ideal future state. Create a new process map that incorporates improvements. What steps will change? How will roles evolve? What technologies can enhance Efficiency?

The Hidden Gems Await

As you embark on this journey, remember that process mapping isn't just about drawing lines and shapes—it's about revealing insights, fostering collaboration, and driving improvement. The map isn't the territory but guides us toward a better destination. It is about learning together without the finger pointing. It helps to foster better teams that holistically look at the problems together and develop better ways to do things.

The next time you know you need to improve things, stop and start process mapping first. So, grab your pen (or digital stylus) and start the mapping journey. The hidden gems await! ■



GENBA VS. BUSINESS IDEOLOGY

by Bob Emiliani

That is what Japanese kaizen consultants teach. They say this repeatedly in a deliberate effort to reorient people's thinking away from the deeply-rooted business ideology that numbers are the truth. If we recognize the genba as the truth and make improvements there via kaizen, the numbers will follow — they always follow. The kaizen consultants know this because they have experienced that outcome hundreds of times or more, and I too know it as well from my own firsthand experiences.

The business ideology of classical management is firm in its preconception that

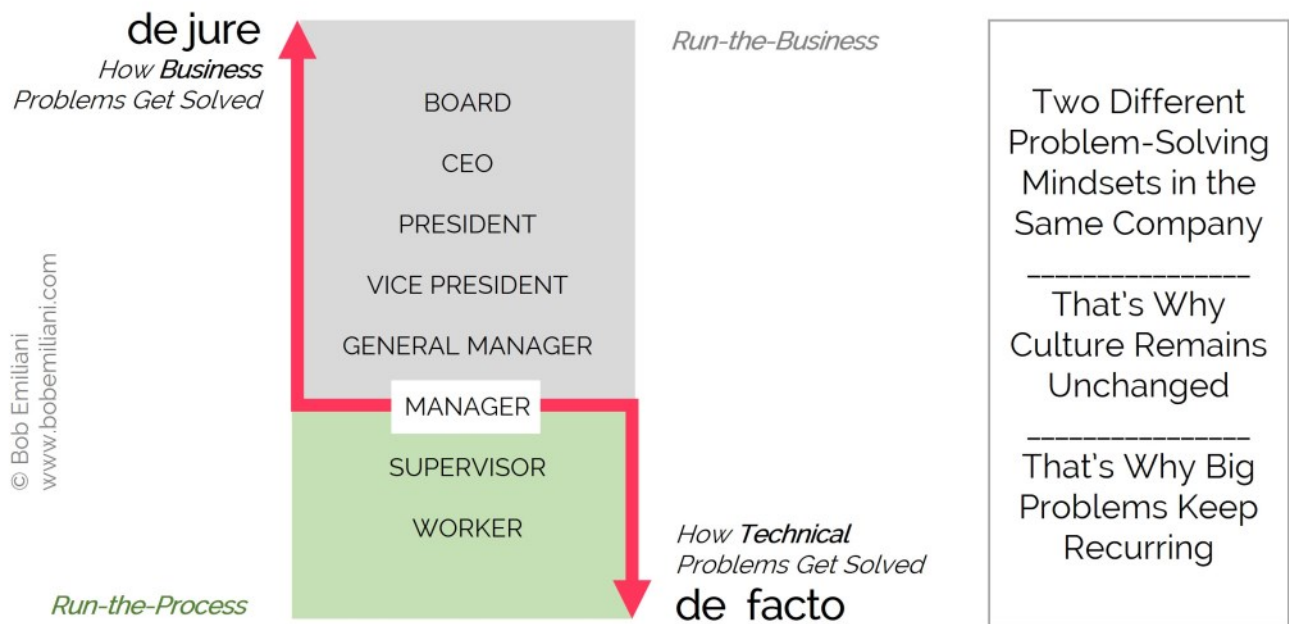
the genba is the source of costs — plant, property, equipment, labor, material, etc. Business leaders persistently fail to see the genba as a source of profits, not just in whatever product or service that is produced, but as additional profit that comes from continuously reducing costs, improving quality, reducing lead-times, and improving safety via kaizen. Business leaders further fail to see the genba as a source of ideas and innovation for process improvement as well as product improvement and new product development.

The business ideology, rooted in classical and neoclassical economics and status, rights,

privileges, aesthetics and related preconceptions, demands that business problems be solved in ways that are different from how one solves technical problems at the genba. This, despite the fact that scientific thinking can be applied to all types of work from CEO to the receptionist. The reality is that leaders at any level, but especially at the C-level, reserve the right to solve problems however they see fit (de jure, meaning "by right") — usually, but not always, in the absence of scientific thinking. Middle managers and those below them, especially workers, must solve the problems they encounter — technical problems — by facts (de facto), not by right because they have no such rights.

Management Over Lean Management® (p. 287). It is a divide that is narrowed or closed only when leaders are willing to challenge their preconceptions — not by reading about it, but by participating in genba kaizen.

The business-technical divide creates a company that is divided in how it goes about solving problems — independently of one another — when in fact business and technical problems are closely related. Everyone working in the lower levels of an organization knows many examples of a leader's decision that did not make sense to them. That is because the business problem was solved by right, not by facts, and almost certainly independent of what's going on at



This difference produces the "Business-Technical Divide," which I first described in my 2018 book, *The Triumph of Classical*

the genba. The conflict between scientific and business ideological understanding of truth leads to conflict between people and departments, generally not resolvable,

worker distrust of management, and management distrust of workers — and likely customer distrust of the company (think, Boeing).

Unfortunately, getting top business leaders to abandon their archaic preconceptions and adopt the new preconceptions that kaizen consultants teach people through hands-on learning experiences is nearly impossible (click [here](#) and [here](#) to learn why). The consequence is that the numbers (metaphysical or abstract reality) remain the truth while the genba (material realm of reality based on sensory experience) is nothing more than the place where people produce things at costs that, from the CEOs perspective, are never low enough. That is how employees lose their jobs to outsourcing and offshoring, or suffer from low wages or insufficient increases in wages and benefits

The business-technical divide has huge impacts on people's lives and livelihoods — employees, suppliers, customers, investors, communities, and even competitors. Of course, business schools are no help in this matter. Professors are almost always career academics with lots of knowledge of theory but zero knowledge of the genba. And those that do have work experience typically focus their teaching on the metaphysical concerns of C-level executives — strategy, finance, marketing, etc.

So what can we do? Get experience in genba kaizen and become a (secular) evangelist for genba kaizen (versus other methods or tools), and don't give up. Our future could depend on learning the truth. ■

“Business leaders further fail to see the genba as a source of ideas and innovation for process improvement as well as product improvement and new product development.

Júnior Empresa Lean de Aveiro (JELA), a non-profit organization, is composed by students of Engineering and Industrial Management of the University of Aveiro (Portugal) and whose main purpose is to put the Lean Philosophy into practice. It holds events and workshops about Lean in the academic community, with several successful editions and many renowned speakers. It also has an important role in the business environment, implementing projects related to continuous improvement on the industrial sector.

JÚNIOR EMPRESA LEAN DE AVEIRO

O PENSAMENTO NA PRÁTICA

LEAN CONFERENCE

On the 14th and 15th of May, the 10th edition of the Lean Conference took place, one of the biggest events at the University of Aveiro, whose main objective is to bring together students and companies from the most varied areas, to present the different applications of the Lean methodology, as well as the way they are executed.

Last year, in 2023, we had the pleasant participation of more than 200 participants and the collaboration of 15 companies.

This year, we worked to improve the quality of the Lean Conference, presenting our participants with new lectures given by keynote speakers and with the collaboration of new companies, familiar with the Lean philosophy. This year's agenda had 2 days dedicated to lectures, workshops, networking and gemba walks.

We invite you to visit our website and social media, where you can find our partners and several moments of our event.



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BEYOND BORDERS: TECHNOLOGY'S IMPACT ON CULTURE AND IDENTITY

by Andrew Lenti

CAUTION: This article may challenge your preconceived notions of cultural identity and who you perceive your tribe to be. It delves into the unsettling truth that in our interconnected, globalised world, terms like 'my people' or 'my culture' are less rooted in ancestral, religious, or patriotic affiliations, and more so in the tools, technology, and systems that shape and influence our daily lives and interactions.

'Your people' may not be who you think they are

In the age of digital interconnectedness, our understanding of identity and culture is

undergoing a profound transformation.

Nowhere is this phenomenon more apparent than in the realm of global conflicts, where individuals from disparate corners of the world passionately voice allegiance to causes half a world away.

In today's world, our sense of self is no longer confined by geographical limitations or conventional allegiances. Rather, it is shaped by the tools, technologies, and systems that govern our daily routines. Sceptical? Just consider the contrasting demographic statistics of social media usage across age groups, alongside the increasing prevalence of virtual, long-distance friendships formed daily.

Consider the recent turmoil in the Middle East, where centuries-old tensions have erupted into violence with devastating consequences. Amidst the chaos, voices from the west flare up to stake their claim in the conflict, invoking notions of entitlement, cultural heritage, and identity to justify their stance. Yet, upon closer examination, one is left to wonder: What common ground does a young business manager in New York City truly share with foreign-speaking combatants in a non-democratic, far-away country?

This question came sharply into focus for me when I stumbled upon a social media post by a native English-speaking woman who appeared to have lived her whole life in the United States fervently expressing support for Israel's military actions under the guise of defending "her people." In her impassioned plea, she invoked a sense of cultural solidarity, portraying the conflict as a direct threat to her identity and way of life. And yet, as I read her words, I couldn't help but feel a sense of irony and disconnect.

Before we rush to align ourselves with outdated notions of identity, it's crucial to reflect on what truly defines 'our culture.' Is it the heritage of our ancestors, or the innovation and the digital landscape that shape our daily interactions? Are our traditions solely those passed down through generations, or do they encompass the system that we all mutually contribute to driving a global 'culture' that transcends borders and enriches lives both near and far? As we grapple with these

questions, one thing becomes clear: in the age of globalisation and technology, the lines between 'us' and 'them' are increasingly blurred. It's through embracing this complexity that we can strive for genuine understanding and empathy in our ever-globalised and progress-focused world.

In summary, the notion of 'Our people' has evolved into a nuanced concept. No longer confined to neat categories of nationality, religion, or ethnicity, identity today transcends traditional boundaries. Instead, we are connected by digital threads to a global community. Regardless of physical or cultural differences, 'Our people' are those who share common values, experiences, and aspirations, collectively contributing to the global system of stakeholder capitalism.

Technology, business, and the new frontier of identity & culture

Across continents and cultures, many of us have discovered that our true connections lie with fellow business professionals who prioritise creating value for their communities. These individuals adhere to fundamental principles of efficiency, innovation, ethics, and sustainability, which form the cornerstone of our shared identity and culture. Regardless of geographical, religious, or ethnic differences, these principles are universally acknowledged at the outset of every new interaction, serving as the common thread that unites us.

In today's globally-focused world, the role of technology and innovation in levelling the

playing field and creating our foundation to interact cannot be overstated.

Our team recently celebrated our 8-month anniversary of collaboration with a dynamic, fast-growing client in the healthcare sector in India. Throughout this period, technology has played a pivotal role as a powerful catalyst for fostering meaningful connections and forging common ground. As our client's user base on our operational excellence platform continued to grow steadily, we successfully guided their management team in constructing a robust operating model support architecture. This involved aligning and streamlining it with all core knowledge and intellectual property. Consequently, team leaders and staff gained access to an end-to-end automated solution for managing standard work and recurring processes across their 25-member staff. Notably, this workforce serves an esteemed client portfolio, which includes several Fortune 500 health and pharmaceutical companies.

By transcending the traditional barriers of distance and nationality, our digital platform empowers us to connect with like-minded individuals, fostering enriching exchanges, virtual friendships, and reciprocal learning. Through the seamless integration of technology, we collaborate effortlessly, overcoming obstacles that once posed significant challenges to such relationships. In this dynamic exchange, we not only expand our professional networks but also deepen our appreciation for diverse cultures and

perspectives. As we delve deeper, we uncover striking similarities that enable us to navigate differences with ease, reinforcing our belief in the universal best business practices that unite us.

In essence, technology used by people with common values serves as a conduit for shaping our identity and culture in the modern age. By embracing shared values and leveraging digital tools for collaboration, we are not only redefining the way we work but also the way we perceive ourselves and our place in the world. As barriers continue to dissolve in the digital realm, the possibilities for cross-cultural exchange and collaboration are limitless, paving the way for a more interconnected and inclusive global community.

Globalisation and the illusion of cultural differences

In the modern era, globalisation has become synonymous with interconnectedness, driven by the seamless integration of innovation and sustainability. This partnership not only fuels economic growth but also shapes the very fabric of our daily lives. From the products we consume to the way we communicate and interact with one another, technology and stakeholder capitalism have emerged as the cornerstones of our global identity.

Culture, once defined by traditional customs and beliefs, has evolved into a fluid and dynamic concept shaped by the forces of

globalisation. No longer confined to geographical boundaries or ethnic affiliations, our cultural identity is now intricately woven into the digital infrastructure of technological systems and the vast networks of the global supply chain.

Consider the observations of Steve Jobs during his visit to Turkey, as recounted in Walter Isaacson's biography. Jobs noticed the younger generation in Turkey using iPhones and accessing the same apps predominantly in the English language, akin to their counterparts in California. This insight led Jobs to recognise that the notion of "culture" was undergoing a redefinition, transcending traditional borders and languages.

Indeed, culture is no longer solely defined by heritage or ancestry; rather, it encompasses the shared experiences and practices that bind us together in a globalised world. Our daily activities, from shopping to socialising, eating, and even expressing humour, are all influenced by the digital infrastructure of technological systems and its supporting supply chain.

In this context, the illusion of cultural differences becomes increasingly apparent. While superficial distinctions may persist, the underlying similarities in how we live, work, and interact with technology serve to blur traditional cultural boundaries. As we navigate the complexities of a globalised society, clinging to outdated concepts of cultural

identity not only constrains our understanding of ourselves but also impedes progress, leaving us with a distorted view of our place in the world.

Conclusion: Rethinking 'Your People' in a globalised world

As we navigate the complexities of identity and culture in our ever-increasing globalised ecosystem, it becomes increasingly clear that the notion of 'Our people' is no longer confined to traditional boundaries, religion, or affiliations. Instead, it is shaped by the values we hold dear and the communities we actively engage with, regardless of geographical distance or cultural background.

Organisations, like ours and our client in India, are increasingly embracing virtual collaboration as a means of harnessing talent and expertise from diverse locations. With the advent of social media, the internet, and transparency-based solutions, the world has indeed become smaller, and tapping into a truly global workforce is no longer out of reach for small companies looking to expand.

To the young and passionate New Yorker who identifies with her foreign speaking 'people' overseas, I invite her to reflect on the true essence of her identity. Does it align more with the non-democratic, combatant forces of a distant land, or does it resonate more closely with the democratic principles and cultural diversity that define her daily life and interactions in her own country, where

“Culture, once defined by traditional customs and beliefs, has evolved into a fluid and dynamic concept shaped by the forces of globalisation .

people of all races, religions and cultures come together in harmony, sharing common ground and forging meaningful business and personal connections?

Technology plays a pivotal role in fostering collaboration among all the players within our stakeholder capitalistic society. Through digital platforms and communication tools, individuals from all walks of life can work together towards common goals, transcending traditional obstacles and fostering a sense of unity and solidarity. It's a testament to the power of innovation that diversity can collectively feel as 'one, united' people, collaborating and thriving in our globalised world.

As we continue to navigate the complexities of our interconnected, ever-globalised world, let us redefine 'our people' not as a narrow construct based on outdated notions of identity, but as a celebration of humanity in the shared values and the ever-increasing ways to collaborate that continue to present themselves, allowing us to break down barriers and enrich our lives collectively. This shift towards a more inclusive and sustainable approach to global collaboration reflects the essence of stakeholder capitalism and global sustainability, paving the way for a brighter future for all. ■



SUPERCHARGING INNOVATION WITH LEAN

by Bruno Pešec

Lean is about flow of value. Innovation is about creation of value. And they have more in common than some might like to admit.

In this article I will spotlight five specific lean practices and how they can be leveraged to innovate better. Each practice is briefly introduced, followed by applicability for innovation. Finally, I include recommended reading for further erudition and enjoyment.

My aspiration is to inspire you to action, for merely reading the list below won't make you a better innovator!

1. Go to the gemba

Practice

Although gemba means "real place" in Japanese, it is most often used to describe a place where work happens and value is created. This was, and remains, one of the most important aspects of any lean practice for one simple reason: if you want to improve work, you have to experience the work. And the best way to do so is to be right where the action happens!

Paying attention is a skill just like any other. The more you practice it, the better you become. Sakichi Toyoda would quietly observe the work at hand for days if needed.

He'd ponder and think and ruminate and pay attention to finest of details. By doing so he came up with over hundred patents that made a difference for his business.

One has to wonder if there is place for people like him in today's fast-paced world? Can you imagine a manager quietly sitting in the office, just observing and thinking how could they help their employees do work better? Faster? Safer? Less wasteful? Can you imagine yourself doing that?

Taiichi Ohno's chalk circle is one small practice worth trying. He would draw a circle on the ground and tell people to stand in it and observe everything around them. And take notes, of course. Combining that with assuming a curious mind—like that of an innocent child—will reveal a world full of wonderful opportunities to do better.

Using it to innovate better

In lean context gemba refers to the workplace, as I explained above. But for innovation context, the original meaning of the word is much more pertinent: "real place." Coming up with ideas in a context-less vacuum only results in wasted time and talent. Best ideas emerge at the points of friction, dissatisfaction, and frustration.

To generate better ideas, one has to immerse themselves in the hands-on practice, whatever that might be in their business. Innovation is about creating value for the customer through new products, services, or business models. Therefore, one must become intimate with the customers' gemba!

Experiencing their "real place" is critical to understanding what they truly value.

Recommended reading

Imai, M. (2012). *Gemba Kaizen: A commonsense approach to a continuous improvement strategy* (2nd ed.). McGraw Hill.

2. CEDAC

Practice

Cause-and-Effect Diagram with the Addition of Cards (CEDAC) is what you get when you combine Ishikawa's cause-and-effect diagram (i.e. fishbone diagram) with Johari window technique and crank it up to 11. It is a wonderful tool for participatory problem solving that combines data collection and analysis with peoples' creativity and experience.

CEDAC, as Fukuda explains it, is actually a whole process rather than "just" a diagram. First we analyse the desired effect (e.g. a specific problem and its effect) using the modified Johari window technique. Then we construct the CEDAC diagram which has straight line leading to the effect and a number of lines connecting to it which represent probable causes. We list fact cards to the left of each causal line, and improvement cards to the right of the same line. Final step is testing improvement ideas and standardising those that work.

I'll explain the window technique, since that feature distinguishes CEDAC the most from traditional Ishikawa diagram.

Window analysis is an important step because it helps us categorise the nature of the situation: A is the ideal, B indicates there is a problem with practice, C signals problems with communication, and D means there are problems with standardisation. It is essentially a 3 by 3 matrix comparing how much do two sides (e.g. current/future process or department A/B or company/customer) know about the problem and how to prevent it (see Figure).

X		Known		Unknown
		Practised	Unpractised	
Y	Practised	A	B	C
	Unpractised	B	B	C
Unknown		C	C	D

Figure: Window analysis for CEDAC. Adapted from Fukuda (1989).

Using it to innovate better

Outcome-driven innovation and jobs-to-be-done theory are two strong and reliable approaches to innovation. Even if you are not familiar with them, you might guess what they focus on just from their names. Yes, they are about understanding what outcomes the customer desires and what jobs customers do achieve that. If only there was a whole host of

practices about job analysis... OK, I'll stop with cheeky allusions.

CEDAC is a complementary tool to popular visual tools in the innovation space like Empathy Map and Value Proposition Canvas. By putting customers' desired job at the end of CEDAC diagrams (e.g. define problem and target effect from the customer's perspective), then one can follow CEDAC steps to (1) understand the nature of what prevents customer from getting the job done, and (2) figure out how to help them achieve that better—based on facts, first-hand data and tested ideas.

Recommended reading

Fukuda, R. (1989). *CEDAC: A tool for continuous systematic improvement*. Productivity Press.

3. Suggestion cards

Practice

Suggestion systems (kaizen teian or meyasubako) never really took off like they did in Japanese companies. But that doesn't mean there isn't anything to be learned from them. Practising how to write suggestions is one of those skill that is very useful!

The only way to candidly discuss ideas is by taking them out of our heads and making them more tangible by (a) writing them down, and (b) illustrating them. Once we have this tangible artefact we can examine it critically, scrutinise it, shake and rattle it, and do any other unpleasant thing that we would not do to each other.

Good suggestions are clear; describe the current situation using data, observations, and visualisations; describe the improvement plan, including underlying rationale for it; and describe the benefits for all involved stakeholders. They evoke vivid images, and are concrete in their focus.

Bad suggestions are abstract and fluffy; consider opinions, wishes and complaints instead of data and facts; have no rationale for improvement; require large investments; and are too narrow or broad for the problem at hand.

Using it to innovate better

The only difference between improvement and innovation ideas is scope! (For a more granular way to distinguish between improvement and innovation initiatives we recommend the "Dogmabuster: On why improvement versus innovation is nonsense" published in theleanmag #17.) Therefore, getting better at writing idea suggestions is very useful for innovators as well.

At the very minimum, good idea card will have answers to questions like who is it for, what is it about, how is it made, and how do the stakeholders benefit from it. Simple? Yes, and that's the point!

Recommended reading

Japan Human Relations Association (Ed.). (1988). *The IDEA Book: Improvement through TEI (Total Employee Involvement)*. Productivity Press.

4. Standard work

Practice

"This doesn't make sense..." I still vividly remember how confused I was at my first engineering job. I've been working at the plant for few weeks, and I noticed that each shift worked very differently—despite end product being exactly the same. Complaining about the (lacking) quality of previous shift was mandatory routine, regardless of actual state.

Having read the Toyota Production System and spent some time with their engineers, I thought it'd be smart to standardise this whole show a bit. After all, aren't we all trying to achieve the same thing here?

Since end product would always conform to the customer's requirements, my suggestions were waved away. "You have to forget everything you learned at school! This is the real world!" At that time I was gullible and inexperienced enough to question that, so I found my own way of doing things too.

Today I recognise the immense value of creating standard work. It might not always be in the form of standard work sheet containing cycle time, work sequence, and standard inventory, but it still delivers on the core concepts: providing at-glance visual with clear and standardised steps everyone agrees upon.

Using it to innovate better

Some people believe innovation and standard work combine as well as water and oil. But that couldn't be further from truth. Usual

“Best ideas emerge at the points of friction, dissatisfaction, and frustration.

“To generate better ideas, one has to immerse themselves in the hands-on practice, whatever that might be in their business.

argument is that innovation is about unbridled creativity and incomprehensible uncertainty. But that is myopic view of innovation.

While outcomes might be uncertain, that doesn't mean that our own innovation processes cannot be standardised! I'm talking

about things like how do we come up, capture, and document ideas; how do we decide which ideas to invest in; how do we create innovation teams; how do we manage innovation portfolios; how do we design and implement innovation strategy; and so on.

Parts of the innovation process can—and should—be standardised. By doing so we create even more space for human creativity and expression, not less.

Recommended reading

Ohno, T. (1988). *Toyota Production System: Beyond large-scale production*. Productivity Press.

5. Know thy knowledge waste

Practice

I'm sure you are familiar with the classic seven wastes: overproduction, waiting, transporting, over-processing, inventories, moving, and making defective parts and products. When Ohno came up with them he was primarily concerned with flow and transformation of material and maximising value in the process.

But what about processes where generating knowledge is the main value driver? Like a product development or R&D function? Here Ward and Sobek offer three categories of knowledge waste, each with two associated wastes:

- Scatter. Waste caused by interruptions in the design process.
 - *Communication barriers. Waste caused by interrupted flow of knowledge.

- * Poor tools. Waste caused by inefficient techniques.

- Hand-off. Waste caused by separation of knowledge, responsibility, action, and feedback.

- * Useless information. Waste caused by having to create progress reports and observe red tape due to hands-off approach.

Waiting. Waste caused by waiting for each other due to gated, linear processes.

- Wishful thinking. Waste caused by making decisions without data.

- * Testing to specifications. Waste caused by testing according to design specifications instead of failure.

- * Discarded knowledge. Waste caused by failing to document all the learning accumulated during development.

Just like becoming aware of seven wastes pointed out by Ohno helped us improve production processes, so can becoming aware of knowledge wastes help us improve development processes.

Using it to innovate better

Innovation, as a process, is fundamentally about knowledge generation. We have a number of unknowns, and we are running experiments to learn more about our assumptions and hypotheses. As we learn, we tweak our direction little by little, until we have that hit innovation.

Unfortunately, too few innovation teams spend time to meticulously document their learning, which is quite a pity for the following reason. Most of the innovation projects don't show any returns for at least three to five years. The easiest way for them to immediately generate organisational value is by making their learnings accessible to others in the organisation. That way existing functions can use valuable insight to tweak existing products and process for the benefit of everyone.

Recommended reading

Ward, A. C., & Sobek, D. K. (2014). *Lean Product and Process Development* (2nd ed). lean Enterprise Institute.

Parting words of wisdom

Please do not consider the above as an exhaustive list of lean practices relevant for innovation. Rather think of them as inspiration for reflecting upon your own lean skills and how you too can be a valuable contributor to innovation initiatives, projects, programmes, and other endeavours. Worlds of improvement and innovation are much closer than they might seem at first. Go out and create some value! ■

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DESTROYING THE FORTRESS OF ORGANIZATIONAL SILOS

by Jared Thatcher

There is a trap in human psychology where it is easier to blame others than to take personal responsibility for our shortcomings. No place is this more destructive than within corporate silos. The tendency for a department to blame both upstream and downstream of their work product is rampant. One survey found that 83% of respondents felt that silos existed in their organizations, and 97% saw those silos as having a negative impact on performance. Animosity, blame, and a host of other negative emotions can lead to poor working conditions, but ultimately if left unchecked, the demise of the organization itself.

But what's the solution? How can we make a

difference in fostering cooperation and unity by breaking down silos? The following 5 steps should help you to make a tremendous difference for your department and your organization. Best of all, you can do this without being in a leadership position.

1. Seek First to Understand

Yes, I know this is the Fifth Habit of Stephen R. Covey's, "The 7 Habits of Highly Effective People" but it also has its roots in 'Respect for People' a core principle within Lean. When people know that you care, that you understand where they are coming from, then magic begins to happen. Trust is built. You see

things from a different perspective, allowing you to diagnose before you prescribe a solution. If you miss this first critical step, then you are waging an uphill battle, and without controlling the high ground, you will lose.

To enhance your understanding of the organization, get to know key players who perform various jobs at each department. A great place to start is to do informal voice of the customer interviews with the admins. They possess valuable insights into the inner workings of the departments and can point you in the direction of who else to interview. As you continue to reach out and meet with silo leaders, over time you will grasp the complexities and nuances of each department's purpose, capabilities, and pain points. This knowledge will help you to contribute to process improvements as you will readily be able to identify potential collaborators to address and solve problems.

2. Conduct Value Stream Mapping Sessions

Too often the focus is on process mapping when developing improvements. Take a moment to understand how the process fits into the greater value stream of the organization. For example, at one organization I was tasked with improving the product scheduling process. By taking time to also map the entire value stream, it became clear that every department within the entire company was directly impacted in some way by the decisions of the schedule planning process. At that time the team did not realize the far-reaching impacts their decisions had upon the entire company.

Value stream maps are a holistic view of how a request for work moves through the entire organization until delivery to the end use customer. Often, people working in the various processes have no idea of just how far reaching the impact of their work is upon the various silos. By taking the time to map the various value streams, you begin to see just how interdependent each group is upon the other. This understanding of how the various silos fit together shows the need for cooperation and coordination.

3. Align Silos KPIs as Part of the Hoshin Kanri Process

At some level every business should be employing Hoshin Kanri or Strategic Planning into their process. One of the biggest pitfalls that I see is when the silos are independently linked to Hoshin planning. Goals that are mutually exclusive of the other departments are doomed to further fortify the silos, producing conflicts and impact both the efficiency and effectiveness of the organization.

In one company my role was to look for improvements within our supply chain and parts. I was part of the operations group, but dotted lined to purchasing, working closely with them to find opportunities for continuous cost improvements. Purchasing had a strategic goal for cost reduction of parts. Unfortunately, that did not align with the strategic goal of engineering which was the production of the newest product model. When I had a change to a part, whether a

redesign or supplier change, it needed to be approved through engineering. It felt like being in a 'hurry up and wait' cycle. The approvals came only when engineering got around to it. Delays in implementation sometimes amounted to over \$500,000 per month in opportunity cost savings, with several month delays not being uncommon. Purchasing blamed engineering. Engineering blamed purchasing.

I finally took the approach of camping out in the cubicles of the lead engineers I was waiting for signoffs from. Until I got their signature, I couldn't move on to the next step. One time, after sitting at the lead engineers' desk for an hour-and-a-half, he looked up from his computer and said, "You aren't going away until I sign this, are you?" His astute observation, and my dogged determination, soon prompted the needed signature.

The next year, during the Hoshin Planning, leadership tied the KPI goals of purchasing to engineering and the KPI goals of engineering to purchasing. This new approach allowed us to generate over \$1 billion in savings over the next three years. Find the commonality between departments and create the KPIs that will drive teamwork to start and break down the silo shells that prevent the flexibility of cooperation needed for a growth mindset.

4. Challenge Assumptions

One of the biggest barriers is overcoming the belief that if only the other department did this or that, things would be better in our department. This toxic silo mentality is at the

core of everything wrong with organizations struggling to become better. As a Lean or OpEx professional, our job is to challenge this mentality. A common mantra we use is, "be hard on the process, easy on the people."

Your job is to break the stereotypes that the other department is out to get you. To destroy the myth that if only they did X, Y, or Z, things would be better. When facilitating process improvement events, it is absolutely critical to have both the upstream and downstream teams in the room. They will better appreciate the work that the team working on the improvements is doing, and they might have suggestions that can better the process for both teams. When we try to work independently of others, we are hurting not only ourselves, but those that could help us. As a facilitator, challenge, challenge, challenge, until the battlements of the silos begin to crack, and then challenge some more. Bring them together and find the common goals that will provide the synergy needed to make the improvements sustainable.

5. Develop an Andon System

Andon (行灯 - pronounced "on"-"don"[t]) in Japanese means 'lantern'. The idea of an Andon system is to shine a light on the problem, to make it visible. This concept is often associated with a line worker pulling the Andon cord to slow the line and light a signal that there is a problem. This is the critical final step to breaking down silos. Unless a notification and accountability system is put

into place, it is impossible to fully break apart the toxic silos. A system at this level might need to escalate all the way to the CEO or the Board, to address any changes.

One option for this is to create a cross-departmental review board that meets frequently to check on the health of the process, vote on any proposed changes to the process to stay informed about what is going on and make recommendations for change if there are issues.

In the case of the department that made changes to the schedule that impacted the whole organization, creating this cross-departmental review board allowed for a fast reaction time for decisions, avoiding surprises that might negatively impact one or more departments, and created a collaborative environment where everyone felt like their inputs were heard and considered. The transparency that this review board brought to the entire organization not only helped to inform the organization about how schedule changes would impact them, but it also gave better insights to the scheduling group so they could be more responsive to the needs of the rest of the company.

By working together, commonality is discovered, synergies are built, open communication brings trust, and the overall effectiveness and efficiency of the entire organization improves. Creating a mechanism for reporting problems in real

time is essential for destroying silo mentality.

Where can these steps lead you?

My single greatest improvement came from following these 5 steps, and it took less than ten minutes in total. While conducting a voice of the customer interview with the operations folks, they said, "Jared, we know this is out of scope, but could you help us to get customer data in real time. We have been asking IT to build us a dashboard with this live data for over a decade, because the data we are using is a few days old. If you could help us to get IT to prioritize this, it would help us so much in making production decisions." They were right, it was out of scope, but I told them I would see what I could do.

The following morning, I had a meeting with the finance department. The thought occurred to me that finance loves their numbers, perhaps they might have something that would work. I explained the plight of the operations group in about three minutes and asked if they had a dashboard with the information they were requesting. I was told that not only did they have that information, but they had additional data points to give deeper insights into production. Within 45 minutes of that conversation operations had access to the data they had been begging IT to develop for them for over a decade. All of this in less than 24 hours from the initial time they had first asked for help.

“There is a trap
in human
psychology
where it is
easier to
blame others
than to take
personal
responsibility
for our
shortcomings.

A month later, operations told me that because they now had current data, they believed that the daily decisions they made would help them save the company over a million dollars a month. Imagine the calculation of the ROI on that improvement!

The fact was, because I had been using these 5 steps to break down silos, I was able to quickly provide the strategic changes we needed to accomplish our goals. By following these steps, you too will be in a better position to help your organization make the transition away from the silo mentality to a system that embraces the collaborative nature of Lean Thinking. ■





ONE PIECE FLOW

EXCERPT FROM "2 SECOND LEAN"

by Paul Akers

(...) The following weeks were like a religious retreat for me – an immersion into a new way of thinking. After my introduction to the power of eliminating waste and the concept of continuous improvement, I was introduced to the idea of "one-piece flow" or making one product at a time.

This concept is about as counter-intuitive as it can get to the modern American mind. For the past century, our culture has been steeped in a manufacturing economy that relies on mass production. We live in the era of "bigger is better," and "super-size me!" and "if something is good, more is better," right?

FastCap was no exception. We operated our shop floor in the mass production, big batch mode of thinking, which is exactly the opposite of one-piece flow.

At FastCap we produced large batches of products regardless of how many orders we had from customers because we believed we were saving time and money. As it turned out, we were creating more work and mountains of waste using the batch production model.

We produced one of our products, called the Laserjamb™, in batches of 100. By our own calculations, it took about 45 minutes to produce each Laserjamb. A batch of 100 took

about 75 work hours to complete from beginning to end. By producing them in batches of 100, we thought we were saving time, ensuring that we always had the product on hand to fill orders as they came in. When Brad and Jon suggested we start making these one at a time and only on a per-order basis, I thought they were out of their minds. I believe my actual words were, "No, that will never work!" (Some is saying about "teaching an old dog new tricks" that comes to mind FastCap was hypnotized by big batch methodology of manufacturing. One Piece Flow -21- right about now.)

The manufacturing environment I had created required enormous amounts of space dedicated to making this product. Making them in batches of 100 meant that we needed to accommodate 100 Laserjamb for each step of the process. For starters, we needed enough workbench space to hold 100 Laserjamb at a time. This created a very spread-out situation that required transportation resources to move the Laserjamb from one part of the plant to another.

The batch production process was consuming our space, equipment, personnel resources, and money. I looked at this as a necessary evil in exchange for efficiency. Making 100 at a time made the most sense to me. In humble compliance with Brad and Jon's recommendations, we started making one Laserjamb at a time. By any experienced manufacturer's first glance, this process

would be too tedious and time-consuming to make sense. I was eager to show these so-called experts what a futile process this was going to be. I was humoring them, or so I thought.

They spent the first week re-arranging everything we did into small U-shaped manufacturing cells. My company started to look like some Asian revolution had just invaded and I was the victim. Remember how much confidence I had in my great company and my manufacturing ability? Well, it was nothing short of humiliating watching these young, "inexperienced" kids rearrange almost everything about our company – stripping our shop floor to the most fundamental components. It was like somebody saying, "Paul, your baby is ugly. We'll take The old dog did indeed learn new impressive tricks! Large workbenches to store large batches of work. If one mistake was made, the whole batch would need reworking. Laserjamb new U-shaped Cell – one person doing the work of four with no mistakes. 2 Second Lean™ -22- it from here." So much for my "young and hip" company!

What do you think happened? Once again my eyes were opened to the magic of Lean thinking. Using one-piece flow, each Laserjamb was produced from beginning to end by one person, who was able to visually inspect the whole piece as he or she was assembling it. This one-at-a-time process allowed us to catch mistakes as they were happening. Perhaps a hole was off-center or

maybe a knob was not screwed on correctly. Whatever the mistake, we were able to catch it during the production process for each Laserjamb, rather than at the end of a batch. Fixing one defective Laserjamb is easy. Having to fix 100 defective Laserjamb at the end of a batch is a disaster!

Improvements like these had a transformative ripple effect as well. Not only did we see each product getting produced with more personalized care and attention – very few mistakes if any – but the rest of the process began to go more smoothly as well. Filling the orders, loading, shipping, billing and the back and forth cash flow associated with this process was immediately simplified.

Rather than having 100 Laserjamb to store, inventory and track, we had zero because each Laserjamb was produced to fill an order. It was produced, packaged, boxed, shipped and paid for. This also meant that we weren't spending money producing something that hadn't been sold. We had a lot less inventory and labor hours sitting on the shelf. A good visual is to imagine all the finished goods as though they were heads of lettuce, wilting by the hour.

One-piece flow simplified and improved every other part of the manufacturing process. This Lean thinking was beginning to make sense to me, in a really counter-intuitive way. ■

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SENSEMAKING

by John Turner

In my previous article, I talked about problem types and how identifying the type of problem you are working with will determine the most appropriate method or technique to use. When dealing with uncertainty, it sometimes becomes necessary to practice sensemaking to better understand the environment, its conditions, and the problem. This sensemaking step is often critical before being able to properly define the problem and identify the appropriate method or technique.

In this short article, I will present the concept of sensemaking along with a background and a few definitions/descriptions. I will then introduce some benefits from practicing

sensemaking. Last, I will introduce the 9- Stages of sensemaking that we derived from our research (Turner et al., 2023) to provide guidance for those who are beginning their sensemaking journey.

Sensemaking

The field of sensemaking has been described as a process of interpretation and understanding for humans to understand ambiguous and puzzling events (Golob, 2018), a communicative process (Naumer et al., April 2008), a theory of our verbings to aid sensemaking and un-making (Dervin, 2015), a bridge between structure and agency

(Dervin, 2015; Naumer et al., April 2008), a socially-based activity (Snowden, 2005; Weick, 1995), a humanistic method rather than a mechanistic one (Dervin & Naumer, 2017; Snowden, 2005), and a methodological framework for applying conceptualizations to close the gaps of realities (Dervin, 2015; Naumer et al., April 2008).

Influencers

Sensemaking has been acknowledged as emerging from five main influencers or researchers.

Brenda Dervin's sense-making methodology from the field of communications.

Dave Snowden's techniques (e.g., the Cynefin Framework, Estuarine Mapping) that originated from the field of knowledge management.

Gary Klein's sense-making in cognitive systems engineering.

Daniel Russell's sense-making and human computer interaction.

Karl Weick's sense-making in organizations. (Urquhart et al., July 31, 2019)

Definitions

The field of sensemaking has been described as an individual process. A process of interpretation and understanding, a process for humans to understand ambiguous and puzzling events (Golob, 2018). Sensemaking from this perspective has been defined as "the processes through which people

interpret and give meaning to their experiences" (Urquhart et al., July 31, 2019, p. Introduction).

It has also been described as a communicative process, one that identifies the nouns of our world offering a bridge between structure and agency (Dervin, 2015). From this perspective, sensemaking has been described as focusing on "how messages are understood by receivers of information and communicated in their life contexts" (Naumer et al., April 2008, p. 2).

Sensemaking has also been captured as a social process. From this perspective, sensemaking is described as a "continuous effort to understand connections (which can be among people, places, and events) in order to anticipate their trajectories and act effectively" (Klein et al., 2006, p. 71).

The definition that I propose, one that encompasses each of the above perspectives, follows: "The process of interpreting ambiguous, complex, unknown, or unexpected events involving multiple processes and interactions resulting in representative actions" (Turner et al., 2023, p. 3).

Sensemaking Benefits/Drives

The practice of sensemaking is practiced by every individual whenever they encounter something unfamiliar or unexpected, either consciously or unconsciously. Acknowledging when one is applying the techniques of sensemaking, and knowing what is involved

in this activity, aids agents through the process. Having a better understanding of such a practice will support agents during their journey. Some of the benefits that sensemaking can provide users include:

- It satisfies a need or drive to comprehend.
- It helps us test and improve the plausibility of our explanations and explain apparent anomalies. Whether an explanation makes sense depends on the person who's doing the sensemaking. The property of 'being an explanation' isn't a property of statements but an interaction of people, situations, and knowledge.
- It's often a retrospective analysis of events. It clarifies the past but doesn't make it transparent (that is, completely understood).
- It anticipates the future. This makes action possible, though uncertain. It helps us muster resources, anticipate difficulties, notice problems, and realize concerns.
- It isn't the choice of an explanation but a process of deliberating over alternative plausible explanations.
- It guides the exploration of information.
- It's often a social activity that promotes the achievement of common ground. It isn't just an individual activity. (Klein et al., 2006, p. 72)

The 9-Stages

After synthesizing the literature from the five influencers previously identified, a multifaceted sensemaking theory was derived through topic analysis, highlighting the 9-stages of sensemaking (Turner et al.,

“Practicing sensemaking when an unknown problem or issue first arises supports leaders, managers, and practitioners to better identify and define the problem.”

2023). These 9-stages include: sensing, meaning-making, sensegiving, becoming, agency, counterfactuals, future-scoping, movement, and impact.

The fulcrum is the stage of counterfactuals which acts as the transition between reason and action. Counterfactuals also challenge the reasoning and action stages in that each

Sensemaking Stage	Definition/Description
1. Sensing	The action or process of making sense, giving meaning, and finding relevant associations.
2. Meaning-making	The act of individuals, crews, or a body of people evaluating and interpreting their environment and its artifacts.
3. Sensegiving	Systematically ordering or arranging knowledge for congruence during hard or unyielding events or situations.
4. Becoming	Examine or investigate attentively to reveal something unknown or hidden.
5. Agency	Encode information for production, statement generation, and action.
6. Counterfactuals	Identifying necessary, contingent, possible, and impossible propositions to guide activity as the center from which action originates.
7. Future-scoping	Identify and map conditions and constraints of the environment and its antecedent conditions to achieve coherence or harmony for requisite problem-solving and decision-making.
8. Movement	Having the capacity to discover, <u>take action</u> , accept a course of action, and transfer to another when needed.
9. Impact	Positive outcomes must be proper and fitting in relation to the action, design, and processes that caused them.

From the 9-stages just presented, a fulcrum was highlighted in the literature. This centroid balances between reason and action. Early philosophers indicated that humans were either capable of reasoning or taking action, but not both. Later, philosophers such as Hume challenged this position stating that it isn't an either/or proposition, humans are composed of a mixture of dispositions; reasoning, being social, and taking action (Flew, 1988). These stages of sensemaking involve social activity at all levels. Reasoning is best represented by the earlier stages of sensing, meaning-making, sensegiving, and becoming. Action is best represented by the later stages of future-scoping, movement, and impact.

must support the other. If the reason stages are not in alignment with what is found in the action stages, then agents must revisit the reason stages to identify why there is a discrepancy. This results in iterative, back-and-forth, activities until understanding is gained and both the reason and action stages align with one another. Counterfactuals aid in this iterative process that challenges the reason and action stages.

Conclusion

Applying sensemaking, regardless of which model or framework you apply (e.g., Dervin, Snowden), application begins with knowing where you are at any given moment in time. The stages presented are non-linear,

meaning that any agent can begin or end at any of the 9-stages. Sensemaking aids agents in knowing where they are before they can act.

To reconnect with the conversation at the start of this article, you must know where you are and have a good handle on the problem and conditions (environmental, functional, structural) before you can begin to select the best method or technique for resolving the problem. Sensemaking is an activity, and in many cases a methodology, that aids agents in better understanding their environment and its surroundings. Practicing sensemaking when an unknown problem or issue first arises supports leaders, managers, and practitioners to better identify and define the problem. Sensemaking also helps to keep agents honest by assuring that all action results in a positive change for all stakeholders involved rather than change for the sake of change. ■

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THE READER'S CORNER

EMBRACING AI: THE VISTA FRAMEWORK

by Amanda Breeden

AI can be successfully integrated into organizations that leverage lean management systems to keep their operations efficient, reduce waste, and enhance quality. With AI, organizations can stay competitive and improve operational excellence.

General Electric (GE) has implemented an AI-powered system to optimize production across its global supply chain. The system uses machine learning algorithms to analyze data on production processes, inventory levels, and customer demand. Then it generates recommendations for production optimization and waste reduction. GE has therefore

increased production efficiency, reduced costs, and improved customer satisfaction.

The healthcare industry has successfully integrated lean management systems to improve patient outcomes and reduce costs. At Cedars-Sinai Medical Center in California, an AI-powered system has been implemented to monitor patients in the intensive care unit (ICU) and predict their risks of developing complications. Proactively identifying at-risk patients, enables doctors to prevent complications from occurring, resulting in fewer patient deaths, shorter hospital stays, and lower healthcare costs.

AI is also integrated at Amazon's fulfillment centers to optimize its supply chain and improve efficiency. Amazon uses AI-powered robots to navigate through the warehouse, which automates the picking, packing, and shipping of customer orders. Amazon has thus reduced the time it takes to improve order accuracy and reduce costs.

As businesses aim to maximize productivity and minimize waste, increasing efficiency becomes a top priority. AI streamlines processes and utilizes innovative technology, empowering companies to compete better by increasing cost savings, customer satisfaction, and employee morale.

Lean practitioners' skill lies in leveraging their abilities to adapt to the ever-changing landscape: staying updated and agile is the way to remain competitive. AI enhances operational efficiency and strategic decision-making. It enables precise data analysis, allowing for faster ways to identify inefficiencies and waste effectively, leading to improved process optimization. AI supports predictive maintenance and forecasting, helping organizations anticipate issues before they arise, which reduces downtime and improves productivity. AI-driven automation takes over repetitive tasks and frees human resource capabilities to focus on more value-added activities.

As lean practitioners committed to maximizing efficiency and minimizing waste, we now face the challenge of harnessing AI's potential to transform.

The VISTA framework—Validation, Implementation, Startup, Training, and

Adaptation—offers a structured approach to guarantee that AI-driven tools are implemented efficiently and aligned with lean principles. This framework underscores the importance of each stage of VISTA, illustrating how it prepares organizations for a seamless fusion of AI capabilities and lean strategies.

Validation: Assessing Needs

The framework begins with Validation, a critical phase where lean practitioners assess the specific needs of their operations, meticulously identifying pain points that AI can address and ensuring the technology is integrated to enhance lean processes. Validation understands the nuances of operational challenges and pinpoints precise areas where AI can make a significant impact. This foundational justifies and tailors organization-specific AI solutions.

Validation sets clear objectives for what the AI can best achieve and aligns its capabilities with the overarching goals of lean management. This alignment is essential to ensure that the AI implementation enhances, rather than disrupts, lean process improvements. By validating the need and potential impact of AI upfront, organizations can avoid costly missteps and instead focus their resources on AI initiatives likely to drive meaningful improvements.

Integrating AI into lean management presents several challenges and risks that require careful consideration:

1. Complexity and integration difficulties: AI systems can be complex and may require significant changes to existing workflows, which could disrupt established lean processes. Organizations need to plan for a gradual integration allowing for adjustments without major disruptions.

2. Data quality and management: AI systems rely heavily on data quality. Inaccurate or biased data can lead to erroneous AI conclusions, negatively affecting decision-making. Establishing robust data governance and quality controls is essential.

3. Change resistance: Introducing AI into a lean environment can be met with resistance from employees who may fear job displacement or mistrust AI decisions. Effective change management strategies alleviate change resistance, including transparent communication and involving employees in the transition processes.

4. Security risks: AI systems enhance data processing capabilities but also increase vulnerability to cyber threats. Implementing strong cybersecurity measures and regular audits will help protect sensitive data.

5. Ongoing maintenance and costs: AI integration involves ongoing expenses for updates, maintenance, and custom training. Planning for these expenses promotes the financial sustainability of AI enhancements.



Addressing these considerations during Validation requires a strategic approach of thorough planning, stakeholder engagement, and rigorous testing.

Implementation: Choosing the Right Tools

Once needs are validated and a solid risk mitigation plan is in place, the Implementation phase is about selecting the correct tools essential for effectively and successfully deploying AI technologies within lean management systems. There are many. The Implementation process confirms that the AI tools selected are the best fit for the specific needs identified during the Validation stage. Implementation involves integrating these tools into existing processes seamlessly and effectively. Here, the AI tools must be compatible with the organization's technology infrastructure, can scale with the business, and have user-friendly interfaces that do not disrupt human workflow. This stage requires a detailed plan for deployment including timelines, resource allocation, and risk management strategies.

Effective implementation sets the foundation for the AI tools to deliver the expected improvements and efficiencies, turning the theoretical benefits identified in Validation into practical, operational enhancements. This stage also bridges the gap between choosing the right tools and ensuring that AI integration is practical, manageable, and aligned with the organization's overall strategic objectives.

Choose tools that enhance process transparency, improve data-driven decision-making, and facilitate real-time problem-

solving. During this phase, lean managers must consider factors such as compatibility with existing processes, ease of integration, the tool's ability to adapt to the unique demands of lean environments, and security and data privacy.

Startup: Pilot Testing

With the right tools selected, the Startup phase involves pilot testing technologies within the organization's lean framework. This testing is not merely about technical validation but also about understanding how these tools fit into the human element of lean processes. Pilot tests help identify needed adjustments and gauge the tool's impact on process efficiency and waste reduction. The objective of this stage is that the AI integration truly enhances lean practices before a full-scale rollout.

This phase in the VISTA framework is critical for the successful AI integration into lean management systems. It allows organizations to test AI solutions in controlled, real-world conditions before a full-scale rollout. It provides an opportunity to see how AI tools perform within existing workflows and identify potential issues or adjustments needed to optimize their effectiveness. By conducting pilot tests, organizations can assess the practical impact of AI solutions on process efficiency and waste reduction, ensuring that the tools meet operational demands and align with lean principles. This iterative testing and refinement help fine-tune the AI implementation and make modifications based on testing feedback. Pilot testing is

“Validation understands the nuances of operational challenges and pinpoints precise areas where AI can make a significant impact.

essential for validating the functionality and integration capability of AI tools and also for building confidence among team members and stakeholders, as well as demonstrating the value and practical benefits of AI in enhancing lean practices. Pilot testing is the appropriate time to integrate “change champions” and eventual front-line staff. Their involvement will illuminate training needs and potential resistance at full implementation

Training: Empowering Teams

The Training phase engages all team members through awareness of the new tools and proficiency in using them. Effective training programs must cover the operational aspects of AI tools and foster an understanding of how these tools can drive lean initiatives of process improvement and waste reduction. Additionally, training should encourage a culture of continuous learning and adaptation, which is essential for evolving lean practices in an AI-enhanced landscape.

Effective training bridges the gap between the technological capabilities of AI and the practical day-to-day operations of lean practices. Training promotes a culture of continuous learning and adaptation, which is critical as AI technologies evolve, and it must be comprehensive in covering both the technical aspects of the AI tools and their strategic application within lean frameworks. It should address any changes in workflow or roles created by the integration of AI and establish a workforce that is confident and competent in maximizing its benefits. This boosts productivity and fosters an

environment of innovation and proactive problem-solving.

Customizing workforce training to staff roles and emphasizing the “What’s In It For Me?” (WIIFM) principle is a viable approach to establishing buy-in, utilization, and optimization. Each employee should understand how AI tools specifically enhance their job functions, making the training more relevant and engaging. By focusing on WIIFM, training highlights the direct benefits employees will experience, such as reduced workload, fewer repetitive tasks, and opportunities for skill enhancement. This personal relevance increases motivation and buy-in, encouraging employees to embrace and utilize AI technologies. Effective training addresses the unique needs and concerns of different roles within the organization, ensuring that all team members are equipped and enthusiastic about leveraging AI in daily operations.

Adaptation: Integration and Scaling

Adaptation involves the full integration and scaling of AI tools across the organization. This phase is about embedding AI into lean processes and ensuring that its benefits are realized broadly and consistently.

It requires the development of ongoing evaluation and feedback mechanisms to continuously improve the tools’ effectiveness and efficiency. Adapting AI to lean processes also means adapting organizational structures and processes to deliver value without disrupting the core objectives of lean management.

Adaptation focuses on embedding AI technology thoroughly into organizational processes so that benefits are consistently realized across the operation. Insights gained from previous phases— particularly the feedback from pilot testing and initial rollouts —must be fine-tuned. This ongoing refinement process helps align AI functionalities with the evolving needs of the organization and of market demands.

Adaptation is most critical for fostering an environment receptive to change. It encourages continuous improvement—a core principle of lean management—by integrating AI tools into daily operations and making them a standard part of the continually improving workflow. Adaptation not only enhances process efficiency but also drives proactive approaches to problem-solving; successfully adapting AI tools requires collaboration across departments for the organization to benefit from enhanced data analytics, predictive maintenance, and automated processes. This collective effort helps solidify the role of AI in achieving lean objectives, making it a cornerstone of the organization’s strategy for competitive advantage and sustained improvement.

By following the structured approach of the VISTA framework, lean practitioners can confidently leverage AI tools to their full potential. As the world evolves, the union between AI and lean methodologies will undoubtedly lead to more insightful, efficient, and competitive operations, ensuring they meet the challenges of a rapidly changing technological landscape. ■



THE READER'S CORNER

CONNECTING CITO THE BOTTOM LINE

A LEAN ACCOUNTING STORY

by Nick Katko and Sérgio Caldeirinha

Sergio is a value stream manager for a manufacturing company. His team recently completed a kaizen event, and he is going to visit the new CFO, Nick, to understand how to quantify the financial impact of the event.

Sergio: "Thanks for meeting with me Nick. How is your first day going? I wanted to meet with you to review my financial analysis of a recent improvement event we completed."

Nick: "Nice to meet you Sergio. My first day is going good so far. OK, help me out a bit. Why do you want me to review your financial analysis of the improvement event?"

Sergio: "Accounting requires us to show cost

savings for every kaizen event. I want to make sure it makes sense to you."

Nick: "Sure I'll be glad to take a look."

Sergio: "Our kaizen event was to reduce the changeover time on the Atlas machine in our value stream. It's the bottleneck in the value stream, so reducing the changeover time will improve flow. We average one changeover per day and the changeover time averages about 2 hours, and through the kaizen event we reduced it to 15 minutes."

Nick: "Wow, that is great!"

Sergio: "I prepared a table showing the financial impact of this event. I'm using the required fully burdened labor rate of \$29,8716

per hour to calculate the cost savings. But I rounded it up to \$30 per hour. Here is what I calculated"

Table 1: Cost Savings Table

	Changeover time reduction	Cost savings @ \$30.00/hour
Per Day	1 hour and 45 minutes	\$52.50
Per Week	525 minutes	\$262.50
Per Month (20 days)	2100 minutes	\$1050.00

Nick: "This looks good Sergio, but where did a rate with 4 decimal places - \$29.8716/hour come from?"

Sergio: "The CFO that recently retired required that all events show a cost savings, and he calculated that rate and told us to use it. I'm not really sure where it came from."

Nick: "I'm pretty sure the rate came from our product costing system, which is used to value inventory. To keep it simple, accounting takes all your overhead costs and divides it by planned labor hours to calculate an overhead rate."

Sergio: "But, why 4 decimal places?"

Nick: "To calculate a precise product cost and margin."

Sergio: "Sounds complicated."

Nick: "It is. Product costing has been around 100 years. Even some accountants don't really understand it. And it really confuses non-financial managers that have to use it. I can explain more later, what I want to do is focus on your event."

Sergio: "OK, what would you like to know?"

Nick: "What were the lean operational reasons you wanted to reduce changeover time?"

Sergio: "To improve on-time delivery and reduce lead times. We've been working on

this for a few years."

Nick: "Do you measure on-time delivery and lead time?"

Sergio: "Yes, delivery has improved 25% and lead times have been reduced by 50% over the past two years. The impact of this event was to reduce lead times by 3 more days."

Nick: "Good, plan on using those numbers in your report out. The 3 day reduction in lead time is a direct operational impact of this event."

Sergio: "But I'm required to show cost savings! Every month accounting asks me why my actual costs are not being reduced because of improvement events. And executives complain that costs are not going down. I dread those meetings and all I want to do is pull my hair out!"

Nick: "Well, I'm bald because I've been dealing with the same issues for years, but I have a solution that is better than trying to show imaginary cost savings."

Sergio: "Yes, please! Anything but an hourly rate with 4 decimal places! That isn't even a real number. All I'm trying to do is reduce lead times, improve delivery and serve customers better. Whenever I say this to accounting, they look at me like I'm speaking some foreign language."

Nick: "Well, you really are when talking to them, but I'll work on that later. What is the average cycle time for parts on the Atlas machine?"

Sergio: "That's an easy one. It's 10 minutes."

Nick: "What's the average sales price and material cost?"

Sergio: "The sales price of the parts produced on the Atlas machine is \$1000 and the material cost is \$600."

Nick: "That means the contribution margin per part is \$400 or 40%."

Sergio: "What is the contribution margin?"

Nick: "It's the sales price less the variable costs, and it is called contribution margin because it is how much the part contributes to covering the fixed costs and profitability."

Sergio: "OK, I get that."

Nick: "You said you reduced changeover time from 2 hours to 15 minutes."

Sergio: "Yes, we freed up 105 minutes per day; 525 minutes per week and 2100 minutes per month."

Nick: "That time you freed up is called capacity and the numbers you just said are another direct operational impact of the event. You eliminated waste and created capacity on the Atlas machine."

Sergio: "I agree, but what about the cost savings?"

Nick: "We are going to show different numbers. Don't worry, I'll explain them during the report out. I'm the new guy, so they can't fire me for not showing cost savings."

Nick: "Next question. Can you produce and sell more items?"

Sergio: Yes, the sales forecast is increasing. With the additional capacity we created we can make and ship 10 more parts per day; 52 more per week and 210 more per month.

Nick: "Yes. And if you sell more, what costs increase due to the increase in sales?"



Sergio: "That would be the material cost. I think I get it. You are saying that reducing the changeover time allows us to sell more and the financial impact is the increase in contribution margin, not a cost savings. That makes sense to me. Maybe I should also work in accounting!"

Nick: "Exactly! The actual financial impact of your improvement event is an \$84,000 increase in contribution margin per month."

Table 2: Increase in Contribution Margin due to improvement event

	Changeover time reduction	Additional parts that can be made (10 min cycle time)	Additional contribution margin @ \$400 per unit
Per Day	105 minutes	10	\$4000.00
Per Week	525 minutes	52	\$20,800.00
Per Month (20 days)	2100 minutes	210	\$84,000.00

Sergio: "I always thought of improvement events like this but could never explain it the way you just did. Sales has told us that our improvement in delivery and lead times has driven the sales growth because we are serving customers better. It's creating a competitive advantage for us."

I can't wait to give my report out and explain that reducing changeover time from 2 hours to 15 minutes is going to make the company \$84,000 more per month. That's almost \$1,000,000 per year! That's a lot better than any cost savings numbers.

When the executives see this, their heads are going to explode! All they do is rant about not seeing cost savings for improvement events, and yet our sales have been improving, and so has profitability!"

Nick: "I hope their heads don't explode; it would be quite messy! This contribution margin analysis validates what has been happening financially due to your improvement in lead times and delivery."

Sergio: "Yes! I knew this but never could show it with financial numbers. I can't wait to let the other value stream managers know about this! Does this analysis have a name?"

Nick: "It's called a lean management accounting system. It is based on understanding the actual cause-effect relationships between lean operating improvement and financial improvement."

Sergio: "Am I thinking about this the right way? The reduction of changeover time reduced lead time and created 2100 minutes of capacity on the machine each month."

Nick: "Yes."

Sergio: "And we can use that capacity, 2100 minutes, to produce and ship 210 more products per month, which will have a financial impact of \$84,000 increase in contribution margin per month."

Nick: "You got it. That's exactly how to explain the financial impact of your improvement event. You understand lean accounting! I plan on introducing the lean accounting to the company, and I'd like to pilot it in one value stream to demonstrate it to everyone. Want to pilot it in your value stream?"

Sergio: "Yes, for sure."

Nick: "OK, the report out we do will be a way to begin introducing lean accounting to the executives and operational leaders. Then we can begin working on a pilot."

Sergio: "I have one more question, based on other improvement events we have completed in the past. What would the financial impact of my event be if there was no increase in demand? I talk with the other value stream managers, and we all feel like we are sometimes searching for a needle in a haystack for financial impact."

Nick: "Great question. You reduced changeover time and created 2100 minutes of capacity per month on the Atlas machine. You also reduced lead times. Those numbers are the direct operational impact of the event. If demand wasn't increasing, there would be no immediate financial impact. But that is OK. Continuous improvement events always have a measurable operational impact. They can create capacity. They can have a direct financial impact. Or an event like yours can have an both an operational and financial impact. It all depends on the specific event."

Sergio: "So we need to study each improvement event independently and understand the operational and financial changes. Thanks Nick, that was eye opening. I'm looking forward to working with you more on lean accounting." ■

This story was adapted from a presentation Nick & Sergio made for the 2023 Lean Global Connection.

To view the session:

<https://www.youtube.com/watch?v=bWcZqri8Bok&list=PLA4yUhT8Mjbx-f-qnggo6YQs-bl1-he-Vy&index=83>

Lean Global Connection 2023:

https://youtube.com/playlist?list=PLA4yUhT8Mjbx-f-qnggo6YQs-bl1-he-Vy&si=gKuiLl4MRvFSgR_N

To learn more about Lean Accounting, please consider buying Nick's books. available on amazon.com.

- * *The Lean CFO*
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